TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

No. 232.

THE UNION PAPER-BAG MACHINE COMPANY AND SAMUEL CUPPLES, APPELLANTS,

vs.

MERRICK MURPHY AND R. W. MURPHY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF MISSOURI.

FILED OCTOBER 16, 1875.

SUPREME COURT OF THE UNITED STATES.

No. 232.

THE UNION PAPER-BAG MACHINE COMPANY AND SAMUEL CUPPLES, APPELLANTS,

vs.

MERRICK MURPHY AND R. W. MURPHY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF MISSOURI.

INDEX.

	Original.	Print.
Bill of complaint	1	1
Subpœna	11	4
Answer	13	5
Replication	21	8
Order	22	9
Amended answer	24	10
Supplemental answer	25	10
Decree	29	12
Appeal	30	12
Appeal-bond	30	13
Depositions	31	13
Stipulation as to exhibits	332	134
Clerk's certificate	333	135

1 In the circuit court of the United States for the eastern district of Missouri. In equity.

Be it remembered that heretofore, to wit, on the 31st day of July, A. D. 1873, there appears of record the following entry, to wit:

THE UNION PAPER-BAG MACHINE CO. ET AL., plaintiffs, *vs.* MERRICK MURPHY ET AL., DEFENDANTS. } In chancery.

This day come the plaintiffs, by their solicitors, and file their bill against the defendants herein; and, on motion of said solicitors, it is ordered that a subpœna be issued against said defendants, returnable to rules the first Monday in September next.

The said bill, so filed as aforesaid, is in words and figures as follows, to wit:

Circuit court of the United States in and for the eastern district of Missouri.

UNION PAPER-BAG MACHINE CO. AND SAMUEL CUPPLES *vs.* MERRICK MURPHY & R. W. MURPHY. } In equity.

To the honorable the judges of the circuit court of the United States for the eastern district of Missouri:

2 The Union Paper-Bag Machine Company, a corporation organized under the general laws of the State of Pennsylvania, and having its place of business at Philadelphia, in said State, and Samuel Cupples, of S't Louis, in the State of Missouri, and a citizen of said State of Missouri, bring this bill against Merrick Murphy and R. W. Murphy, having their place of business at S't Louis, in the State of Missouri, and citizens of said State.

And your orators complain and say that heretofore and before the 12th day of July, 1859, one William Goodale, the true, original, and first inventor of a certain new and useful improvement in machines for making paper bags, not known or used before, and not, at the time of his application for a patent, in public use or on sale with his consent or allowance.

And your orators further show unto your honors that the said William Goodale, so being the inventor of said improvement, and being a citizen of the United States aforesaid, made application to the proper department of the Government of the United States for letters-patent in accordance with the then existing acts of Congress; and, having duly complied in all respects with the conditions and requisitions of

3 said acts, on the 12th day of July, 1859, letters-patent of the United States, signed, sealed, and executed in due form of law for invention or discovery, were issued to the aforesaid William Goodale, whereby there were secured to him, his heirs, executors, administrators, and assigns, for the term of 14 years from the said 12th day of July, 1859, the full and exclusive right of making, using, and vending to others to be used, the said improvement.

And your orators further show unto your honors that the said Will-

iam Goodale, having made application to the Commissioner of Patents for an extension of said letters-patent, and having in all things complied with the requirements of the act of Congress in that case made and provided, the said letters-patent were duly extended by the Commissioner of Patents for the term of seven years, from the 12th day of July, 1873, a duly-authenticated copy of which letters-patent, with the certificate of such extension thereto affixed, is hereunto annexed, and marked "Exhibit A."

And your orators further show unto your honors that on or about the 14th day of July, eighteen hundred and seventy-three, the said William Goodale, by an assignment in writing of that date, sold, assigned,
4 and transferred unto your orator, the Union Paper-Bag Machine Company, all his right, title, and interest in and to said letters-patent and invention, which assignment was duly recorded in the Patent-Office of the United States, as by said assignment or a duly-authenticated copy thereof, and the certificate of such recording thereto affixed, ready in court to be produced, will fully and at large appear.

And your orators further show unto your honors that, on or about the 27th day of June, A. D. eighteen hundred and seventy-one, your orator, the Union Paper-Bag Machine Company, by an instrument in writing of that date, granted and confirmed unto your orator, Samuel Cupples, the exclusive right to use machines constructed with the aforesaid letters-patent within certain territory, including the State of Missouri, which instrument was duly recorded in the Patent-Office of the United States, and the certificate of such recording thereto affixed, ready in court to be produced, will fully and at large appear.

And your orators further show unto your honors that, at a stated term of the circuit court of the United States for the southern district of New York, a bill in equity was filed in the said court by your orators against George L. Newell and George H. Mallary, for infringement
5 of the aforesaid letters-patent granted to the said William Goodale; that the said Newell and Mallary, in their answer, denied the validity of the said letters-patent, alleging that the improvement therein described and claimed had been known and used by others before the invention thereof by the said William Goodale; that testimony was taken in the said cause on behalf of both parties thereto; that the said cause came before the said court at a stated term thereof, held at the United States court-room in the city of New York, on Tuesday, the 17th day of December, 1872, on final hearing of the pleadings and proofs; and that after argument by counsel, the opinion of the court was delivered, and a decree entered, a copy of which decree is hereto annexed, marked "Exhibit B," wherein and whereby it was ordered, adjudged, & decreed by said court that the letters-patent granted to William Goodale, dated July 12th, 1859, & the letters-patent granted to B. S. Binney, as assignee of E. W. Goodale, September 12th, 1865, both for improvements in paper-bag machinery, are good and valid letters patent, being the patents referred to in the bill of complaint in said cause, & that the complainants are duly vested with the sole and ex-
6 clusive rights of making, constructing, and using, and vending to others to be used, the said patented improvements during the terms of said patents, respectively.

And your orators further show that your orators have extensively applied the said improvement to practical use, and have been, and, but for the infringement hereinafter complained of would still be, in the undisturbed possession, use, and enjoyment of the exclusive privileges

secured by the said letters-patent, and in receipt of the profits of the same.

And your orators further show unto your honors, as they are informed and believe, that the said defendants hereinafter named, well knowing all the facts hereinbefore set forth, are now constructing and using the said patented improvement, or a machine in some parts thereof substantially the same in construction and operation as in the said letters-patent mentioned, the exclusive right and privilege to make and use which, and vend the same to others to be used, is thus by law vested in your orators.

And so it is, may it please your honors, that the said defendants, as your orators are informed and believe, without the license of your
7 orators, against their will and in violation of their rights, have made and used, and intend to continue still to make and use, the said improvement within the district of Missouri, all of which is in violation of the said letters-patent.

To the end, therefore, that the defendants may, if they can, show reason why your orators should not have the relief hereby prayed, and that they may make a full disclosure and discovery of all the matters aforesaid, and, upon their several corporal oaths, and according to the best and utmost of their knowledge, remembrance, information, and belief, full, true, direct, and perfect answer make to such of the several interrogatories hereinafter numbered and set forth as by the note hereunder written they are required to answer, that is to say:

I. Whether the said original letters-patent were granted and issued to the said William Goodale, as hereinbefore set forth.

II. Whether the said letters-patent were extended and assigned to the said The Union Paper-Bag Machine Company, as hereinbefore set forth.

III. Whether the exclusive right under the said letters-patent for the State of Missouri was granted to the said Samuel Cupples, as hereinbefore set forth.

8 IV. Whether the said defendants, or either of them, and which, have at any time, and when, and during what period of time, made, sold, or used any, and how many, machines for making paper-bags, constructed in whole or in part upon the principles and in the manner described in said letters-patent, and when and how they were made. Describe minutely and in detail their construction and mode of operation.

And now to the end that the defendants may be compelled to account for and pay over the income thus unlawfully derived from the violation of the rights of your orators as above, and be restrained from any further violation of said rights, your orators pray that your honors may grant a writ of injunction, restraining the defendants from any further construction or sale, or use in any manner, of said patented improvement, or any part thereof, in violation of the rights of your orators as aforesaid, and that the machine or machines now in possession or use of the said defendants may be destroyed or delivered up to your orators for that purpose and also that your honors upon the entering of the
9 decree for an infringement, as above prayed for, may also proceed to assess, or cause to be assessed, under your direction, in addition to the profits to be accounted for by the defendants as aforesaid, the damages your orators have sustained by reason of such infringements, and that your honors may increase the actual damages so assessed to a sum equal to three times the amount of such assessment, under the circumstances of the wilful and unjust infringement by said defendants, as herein set forth.

And your orators pray, also, for a provisional or preliminary injunction, and for such other relief as the equity of the case may require and to your honors may seem meet.

May it please your honors to grant unto your orators not only a writ of injunction conformable to the prayer of this bill, but also a writ of subpœna of the United States of America, directed to the said Merrick Murphy and R. W. Murphy, and commanding them to appear and answer unto this bill of complaint, and to abide and perform such order and decree in the premises as to the court shall seem meet, and be required by the principles of equity and good conscience.

10 KRUM & PATRICK,
GEORGE HARDING,
Solicitors for Complainants & of Counsel.

The defendants are required to answer each of the foregoing interrogatories, numbered one to four inclusive.

KRUM & PATRICK,
GEORGE HARDING,
Solicitors for Complainants.

UNITED STATES OF AMERICA,
Eastern District of Pennsylvania, ss:

Edwin J. Howlett, president, and John P. Onderdonk, secretary of the Union Paper-Bag Machine Company, the complainants in the foregoing bill named, being duly sworn, say that so far as the statements therein contained are within their own knowledge, they are true, and so far as they are derived from the information of others, they verily believe them to be true.

And they further say that they verily believe the said William Goodale, in said bill named, to be the original, true, and first inventor of the new and useful improvement in machines for making paper bags, which is described in the letters-patent granted to him, and mentioned in the foregoing bill. And your deponents verily believe that the title of the complainants as set forth in said bill is true.

11 SEAL OF THE U. P. B. M. CO. EDWIN J. HOWLETT, *Pres't.*
JNO. P. ONDERDONK, *Sec'y.*

Sworn to and subscribed this 25th day of July, A. D. 1873, before me.
[SEAL] CHA'S P. CLARK,
U. S. Com'r.

The said exhibits, A and B, mentioned in the said bill under stipulation filed herein, will be produced with the record of this case.

And afterwards, to wit, on the thirty-first day of July, 1873, the following subpœna in chancery was issued, to wit:

EASTERN DISTRICT OF MISSOURI, *sct:*

The President of the United States to Merrick Murphy and R. W. Murphy, greeting:

You are hereby commanded to be and appear at rules to be held at the office of the clerk of the circuit court of the United States for the eastern district of Missouri, on the first Monday of September next, at the city of S't Louis, then and there to answer the bill of complaint of

the Union Paper-Bag Machine Company, a corporation organised under the general laws of the State of Pennsylvania, and Samuel Cupples, a citizen of the State of Missouri, filed against you on the
12 thirty-first day of July, 1873. Hereof fail not.

Witness the honorable Nathan Clifford, senior associate justice of the United States, the thirty-first day of July, 1873.

Issued at office, in the city of S't Louis, under the seal of said court, the day and year last aforesaid.

[L. S.]

AUSTIN DRAKE, *Clerk*,
By H. C. GEISBERG, *Deputy*.

MEM.—The defendants to enter their appearance in this suit in the clerk's office on or before the day at which the writ is returnable, otherwise the bill may be taken pro confesso.

AUSTIN DRAKE, *Clerk*,
By H. C. GEISBERG, *Deputy*.

Endorsed on said subpœna in chancery is the following marshal's return, to wit:

UNITED STATES OF AMERICA,
Eastern District of Missouri, ss:

Executed this writ by delivering a copy of the subpœna in chancery, together with a copy of the petition, to the within-named R. W. Murphy, and by leaving a copy of the subpœna in chancery for the within-named Merrick Murphy, at S't Louis, within the eastern district of Missouri, August 2d, 1873.

13

C. A. NEWCOMB,
U. S. Marshal, E. D. Mo.,
By GEO. N. STEVENS,
Deputy.

And afterwards, to wit, on the 22d day of October, 1873, the defendants, by leave of court, filed the following answer, as follows, to wit:

Circuit court of the United States in and for the eastern district of Missouri. Equity.

UNION PAPER-BAG MACHINE CO. AND ALL, compl't,
vs.
MERRICK MURPHY AND R. W. MURPHY, D'F'T.

To the honorable the judges of the circuit court of the United States in and for the eastern district of Missouri:

The joint and several answer of Merrick Murphy and R. W. Murphy, defendants, to the bill of complaint of the Union Paper-Bag Machine Company and Samuel Cupples, complainants.

These defendants, now and at all times hereafter saving and reserving to themselves and each of them all benefit and advantage of exception which can or may be had or taken to the many errors, uncertainties, and other imperfections in the said complainants' said
14 bill of complaint contained, for answer thereunto, or unto so much and such parts thereof as these defendants are advised is or are

material or necessary for them or either of them to make answer unto, they, these defendants, severally answering, say that they admit, on information and belief, that the patent and the extension thereof, as in said bill set forth, were granted in the manner and to the party and for the purposes, and at the several dates, as set forth in said bill. But these defendants deny that the said William Goodale was the first and original inventor of the inventions shown, described, and claimed in said patents, both original and extended.

Respondents, further answering, deny any knowledge, information, or belief, save as in said bill alleged, in respect to each and all the assignments and licenses in said bill mentioned, and leave the complainants, to make such proof of the same as they may be advised.

Further answering, these defendants deny that the said complainants, or either of them, have ever applied the said improvements, or either of them, to any practical use whatever, or that they, or either of them, have at any time made, constructed, used, or sold any machine such as that claimed and described in said letters-patent, or that they, or
15 either of them, have ever derived any profit whatever from the manufacture, sale, or use of the same.

These defendants, further answering, deny that they or either of them have at any time hitherto, or are now making, constructing, using, or vending to others to be used, the said pretended invention, or any machine or machines in any part thereof substantially the same in construction and operation as in said letters-patent mentioned, or constructed in whole or in part upon the principles and in the manner described and shown in the same.

Further answering, these defendants admit that they have manufactured and used, and are now using, two machines for making paper bags, but they deny that the said machines, or either of them, so made and now being made by them, is or are the same as, or an imitation of, or substantially of the same construction or operation as the machine mentioned in said letters-patent, but, on the contrary, they aver said machines and each of them to be substantially different from the machine claimed by said complainants by virtue of said letters-patent, and that the same are made substantially in accordance with, and the right to make
16 and sell and use the same is secured by, the letters-patent of the United States, granted to the defendant Merrick Murphy for "improvement in paper-bag machines," the same bearing date January twenty-first, A. D. 1873, and numbered 135145, as will more fully appear in and by said patent, or a duty-authenticated copy thereof, which will be shown to your honors on the hearing hereof, and to which, for greater certainty, these defendants crave leave to refer.

Further answering, these defendants deny that the specification forming part of said letters-patent is in such full, clear, and exact terms as, with the aid of the drawings attached thereto, to enable any person skilled in the art to which said pretended invention relates, to construct the said machine purporting to be described therein, but, on the contrary, these defendants aver that such specification is so uncertain, imperfect, and ambiguous that the machine or invention undertaken to be described therein could not, with the aid of the drawings thereto attached, be constructed from such description by a person skilled in the art without the application of the skill of the inventor.

Further answering, these defendants aver, on information and
17 belief, that not only was the said William Goodale not the first and original inventor of the said invention, and in particular of that portion thereof included in the first claim of the said letters-patent and

described and shown in the specification and drawings thereof, but they further aver, on information and belief, that long prior to the date of the alleged invention of said William Goodale, the same was well known to one E. W. Goodale, now of Clinton, in the State of Iowa, and that all the knowledge said William Goodale ever possessed of the same were communicated to him by said E. W. Goodale long prior to the date of the application made by said William Goodale for said letters-patent or of any pretented invention thereof, by or on the part of the said William Goodale, and that the same was publicly used by the said E. W. Goodale at Clinton, in the State of Massachusetts, and elsewhere.

These defendants, further answering, aver that among such persons who had a prior knowledge as aforesaid of such invention pretended to have been made by said William Goodale are as follows: Lucy S. Goodale, at Clinton in the State of Massachusetts, and elsewhere in the United States, and now residing at Clinton in the State of Iowa;

18 Henry T. Goodale, at said Clinton, in the State of Massachusetts, and elsewhere in the United States, and now residing in the town of Fitchburg, State of Massachusetts; C. F. W. Parkhurst, James T. Maynard, and Daniel B. Ingall, all at said Clinton, in the State of Massachusetts, and elsewhere in the United States, and all now residing at said Clinton in the State of Massachusetts.

Furthering answering, these defendants say that long prior to any supposed discovery or invention by the said William Goodale, as in his said letters-patent shown and described, all the improvements therein contained and set forth were fully described and shown in the following letters-patent of the United States, to wit:

Letters-patent granted Francis Wolle for "machine for making paper bags," the same bearing date 26th Octo., A. D. 1852, and numbered 9355.

Letters-patent granted E. W. Goodale for "improved machine for making paper bags," the same bearing date 29th May, A. D. 1855, and numbered 12945.

Letters-patent granted E. W. Goodale for "improvement in machines for making paper envelopes," the same bearing date 9th Octo., A. D. 1855, and numbered 13647, and re-issue of same, bearing date April 16th, A. D. 1861, and numbered 65.

19 Letters-patent granted Francis Wolle for "machine for making paper bags," the same bearing date 29th May, A. D. 1855, and numbered 12982.

Letters-patent granted Benjamin R. Smith and Charles H. Morgan, assignee of Benj. F. Rice, for "improvement in machines for making paper bags," the same bearing date 28th April, A. D. 1857, and numbered 17184, and re-issue of same, bearing date 6th March, A. D. 1860, and numbered 920.

Letters-patent granted Henry R. David for "improvement in knives to cut paper bags," the same bearing date 5th Octo., A. D. 1858, and numbered 21657.

Also in the following English letters-patent, to wit: Letters-patent granted James Cox for "improvement in knives for cutting paper and other materials," the same bearing date 13th of February, A. D. 1854, and numbered 347.

All which will more fully appear in and by duly authenticated copies of the said several letters-patent, which will be produced to your honors, and to which, for greater certainty, these defendants crave leave to refer at the hearing herein.

And these defendants humbly submit and insist that, under the facts and circumstances as above alleged, the said complainants have no right

to any further or other answer to said bill or any part thereof than is above given, and no right of injunction, account, or other relief
20 prayed for in said bill, and they therefore pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

MERRICK MURPHY.
R. W. MURPHY.

SAM'L S. BOYD,
Def'ts' Sol'r.

UNITED STATES OF AMERICA,
Eastern District of Missouri, ss:

On this 18th day of October, A. D. 1873, personally appeared Merrick Murphy and Rufus W. Murphy, the defendants above named, who, being by me severally sworn, severally depose and say that they have heard the above and foregoing answer read and know the contents thereof, and that the same is true of their own knowledge, except as to those matters which are therein stated on information and belief, and as to those matters they verily believe it to be true.

MERRICK MURPHY.
R. W. MURPHY.

Subscribed and sworn to before me the day and year last above written.

[SEAL.] CHA'S D. MOODY,
Notary Public, St Louis Co., Mo.

21 And the replication so filed as aforesaid is in words and figures as follows, to wit:

Circuit court of the United States in and for the eastern district of Mo.
Equity.

UNION PAPER-BAG MACHINE CO. ET AL., COMPL'TS,
vs.
MERRICK MURPHY & R. W. MURPHY, DEF'TS.

The replication of complainants to the answer of defendants.

These repliants, saying and reserving unto themselves all and all manner of advantage of exception to the manifold insufficiencies of the said answer, for replication thereunto say that they will aver and prove their said bill to be true, certain, and sufficient in the law to be answered unto, and that the said answer of the said defendants is uncertain, untrue, and insufficient to be replied unto by the repliants, without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied unto, confessed and avoided, traversed, or denied, is true; all which matters and things these repliants are and will be ready to aver and prove as this honorable court shall direct, & humbly prays as in & by their said bill they have already prayed.

KRUM & PATRICK,
Complainant's Solicitors.

22 And afterwards, to wit, on the 30th day of October, 1873, the said circuit court being then in session, the following proceedings were had, to wit:

THE UNION PAPER-BAG MACHINE CO. ET AL., plaintiffs, *vs.* MERRICK MURPHY ET AL., DEFENDANTS. } In chancery.

This day come the parties, by their respective solicitors, the plaintiffs by John M. M. Krum, esquire, and the defendants by Samuel S. Boyd, esquire. Whereupon the motion for a preliminary injunction against the defendants, as prayed for in plaintiffs' bill, came on to be heard, and was argued by said solicitors and submitted, and by the court taken under advisement.

And at said term of said court and on the 31st day of October, 1873, the following further proceedings were had, to wit:

UNION PAPER-BAG MACHINE CO. ET AL., plaintiffs, *vs.* MERRICK MURPHY ET AL., DEFENDANTS. } In chancery.

This day come again the parties, by their respective solicitors, and the motion for a preliminary injunction against said defendants having been heretofore argued by counsel and submitted to the court, and being now fully advised in the premises, it is ordered that the defendants in
23 this cause give bond in the sum of ten thousand dollars, ($10,000,) with sureties to be approved by the clerk of this court, conditioned that said defendants shall answer all damages and costs that may be adjudged against them by reason of the construction, sale, or use by them of the patented improvement in the bill in this cause described, and in default of which it is ordered that the said defendants, Merrick Murphy and Rufus W. Murphy, their attorneys, agents, servants, and workmen, be, and they are hereby, enjoined and restrained until the further order of this court from making, using, or vending to others to be used, machines for making paper bags, constructed in whole or in part upon the principles and in the manner described in the letters-patent granted to William Goodale, dated July 12, 1859, for improvement in in paper-bag machinery, being the patent referred to in said bill of complaint in this cause.

And afterwards, at the March term, 1874, of said court, and on the 3d day of April, 1874, the following appears of record in said cause, to wit:

UNION PAPER-BAG MACHINE CO. ET AL., plaintiffs, *vs.* MERRICK MURPHY ET AL., DEFENDANTS. } In chancery.

This day come the defendants, by their solicitor, and, by leave
24 of court, file their amended answer to the bill herein; and, on motion of solicitor for plaintiffs, it is ordered that the replication heretofore filed stand as the replication of said plaintiffs to said amended answer.

Amended answer.

The said amended answer being in words and figures following, to wit:

Circuit court of the United States within and for the eastern district of Missouri.

UNION PAPER-BAG MACHINE CO. ET AL., compl'ts, *vs.* MERRICK MURPHY AND RUFUS W. MURPHY, def'ts. } Equity.

To the honorable the judges of the circuit court of the United States in and for the eastern district of Missouri:

The joint and several amended answer of Merrick Murphy and Rufus W. Murphy, the above-named defendants, to the bill of complaint of the Union Paper-Bag Machine Company and Samuel Cupples, complainants.

These defendants, by leave of this honorable court first had and obtained, amend their answer heretofore filed in this cause by inserting on page three of said original answer, and in the 13th line of same, after the words "numbered 135145," the following: "And letters-patent for 'improvement in paper-bag machines,' granted said defendant
25 Merrick Murphy, January 27th, A. D. 1875, and numbered 145774."

And these respondents pray as they have prayed in their original answer.

MERRICK MURPHY.
R. W. MURPHY.

SAM'L S. BOYD,
D'f'ts' Sol'r.

UNITED STATES OF AMERICA,
Eastern District of Missouri, ss:

On this 3d day of April, A. D. 1874, personally appeared Merrick Murphy and Rufus W. Murphy, the respondents above named, who, being by me severally sworn, depose and say that they have heard the above and foregoing answer read, and know the contents thereof, and that the same is true of their own knowledge.

MERRICK MURPHY.
R. W. MURPHY.

Subscribed and sworn to before me the day and year last above written.

[SEAL.] CHA'S D. MOODY,
Notary Public in an' for S't Louis County, State of Missouri.

And afterwards, to wit, on the 19th day of August, 1874, the defendant, by leave of court, filed the following supplemental answer, to wit:

26 United States circuit court, eastern district of Missouri.

UNION PAPER-BAG MACHINE CO. ET AL.
vs.
MERRICK MURPHY ET AL. } Equity.

And now, at this day, come the defendants above named, and by consent of counsel file this their supplemental answer:

These defendants jointly and severally admit that since the filing of their original answer herein they have changed the cutting-knife used by them in the machines for making paper-bags, admitted by them in their said answer to have been used as therein stated, and, since the 10th day of November, A. D. 1873, they admit that they have used in said machines a lower knife in all respects the same in construction and operation as the knife described and shown in the letters-patent of the United States granted this defendant, R. W. Murphy, on the 27 day of January, A. D. 1874, and numbered 146773; that they are still using the same, and since said date have used none other; but they deny that said knife is the same as, or substantially the same as, or an imitation of, the knife described in complainant's said letters-patent, but, on the contrary, they aver the same to be entirely different therefrom in
27 construction and operation, and that by the use thereof in their said machines they have infringed upon no rights secured or intended to be secured to said complainants by virtue of their said letters-patent, as will more fully and clearly appear in and by the letters-patent of said R. W. Murphy, above referred to, or a duly-authenticated copy thereof, to be produced at the hearing hereof.

Wherefore these defendants, praying the full benefit of their former answer filed herein, submit that said complainants have no right of injunction, account, or other relief prayed for in their said bill, and they ask to be hence dismissed as heretofore prayed.

MERRICK MURPHY.
R. W. MURPHY.

SAM'L S. BOYD,
Resp'd'ts Sol'r.

UNITED STATES OF AMERICA,
Eastern District of Missouri, ss:

On this 18th day of Aug'st, A. D., 1874, personally appeared Merrick Murphy and Rufus W. Murphy, the respondents above named, who, being by me severally sworn, severally depose and say that they have heard the above and foregoing answer read, and know the contents thereof; that the same is true of their own knowledge, except as
28 to those matters which are therein stated on information and belief, and as to those matters they verily believe it to be true.

MERRICK MURPHY.
R. W. MURPHY.

Subscribed and sworn to before me the day and year last above written.

[SEAL.] CHA'S D. MOODY,
Notary Public in and for County of St Louis, State of Missouri.

And afterwards, at the September term, 1874, of said court, and on the 23d day of October, the following appears of record in said cause, to wit:

UNION PAPER-BAG MACHINE CO. ET AL., PL'FFS,
vs.
MERRICK MURPHY ET AL., DEFENDANTS.
} No. 124. In chancery.

UNION PAPER BAG MACHINE CO. ET AL.,
plaintiffs,
vs.
MERRICK MURPHY ET AL., DEFENDANTS.
} No. 149. In chancery.

This day come the parties in the above causes, by their respective solicitors, the plaintiffs by John M. Krum, esquire, and the defendants by Samuel S. Boyd, esquire, and thereupon said solicitors file a stipulation that said causes may be heard together; and said causes coming on to be heard on the bills, answers, replications, stipulations, and proofs, the same were argued by counsel, and the argument thereof
29 not having been concluded at the hour of adjournment, it is ordered that further proceedings therein be continued until tomorrow morning.

And on the 28th day of October, 1874, the following appears of record in said cause, to wit:

UNION PAPER-BAG MACHINE CO. ET AL.,
plaintiffs,
vs.
MERRICK MURPHY ET AL., DEFENDANTS.
} In chancery.

This cause coming on to be heard at this term, and having been heretofore argued by counsel, and submitted to the court upon the pleadings and proofs, on consideration whereof, and being now fully advised in the premises, it is by the court ordered, adjudged, and decreed that the preliminary injunction heretofore entered herein be, and the same is hereby, dissolved; and it is further ordered, adjudged, and decreed that the bill of said plaintiffs be, and the same is now hereby, dismissed.

It is further ordered that said plaintiffs pay the costs herein expended, and that execution be issued therefor.

And afterwards, at the same term of said court, and on the 31st day of October, 1874, the following appears of record in said cause, to wit:

30 UNION PAPER-BAG MACHINE CO. ET AL.,
pl'ffs,
vs.
MERRICK MURPHY ET AL., DEFENDANTS.
} In chancery.

This day come the plaintiffs, by their solicitor, John M. Krum, esquire, and pray an appeal from the decree heretofore entered in this cause to the Supreme Court of the United States, which appeal is allowed. Thereupon said plaintiff presents a bond with surety, as required upon the allowance of such appeal, and said bond is by the court approved and ordered to be filed and made a part of the record herein.

Appeal bond.

The said bond, so approved and filed as aforesaid, is in words and figures following, to wit:

Know all men by these presents that we, Samuel Cupples, as principal, and William Brown, as security, are held and firmly bound unto Merrick Murphy and Rufus W. Murphy in the full and just sum of one thousand dollars, to be paid to the said Merrick Murphy and Rufus W. Murphy, their heirs, executors, administrators, or assigns; to which payment, well and truly to be made, we bind ourselves, our heirs, executors, and administrators, jointly and severally by these pres-
30½ ents, sealed with our seals, and dated this 31st day of October, in the year of our Lord one thousand eight hundred and seventy-four.

Whereas lately, at the September term, 1874, of the circuit court of the United States for the eastern district of Missouri, in a suit depending in said court between Union Paper-Bag Machine Company and Samuel Cupples, *are* plaintiffs, and Merrick Murphy and Rufus W. Murphy *are* defendants, in chancery, judgment was rendered against the said plaintiffs, and their bill of complaint was dismissed by the judgment and decree of said court; and the said plaintiffs having appealed from the judgment and decree in the aforesaid suit, and a citation directed to the said defendants having issued in due form of law, citing and admonishing them to be and appear at a Supreme Court of the United States, to be holden at Washington the second Monday of October next:

Now, the condition of the above obligation is such that if the said Union Paper-Bag Machine Company and Samuel Cupples, the said appellants, shall prosecute their said appeal to effect and answer all dam-
ages and costs if they fail to make good their appeal plea, then the above obligation to be void; else, to remain in full force and
30½ virtue.

SAM'L CUPPLES. [SEAL.]
W'M BROWN. [SEAL.]

Approved by—

SAMUEL TREAT, *Judge.*

At the hearing of said cause, the plaintiffs submitted the following testimony:

31 Circuit court of the United States for the eastern district of Missouri.

UNION PAPER-BAG MACHINE CO. AND SAMUEL Cupples
vs.
MERRICK MURPHY AND R. W. MURPHY.

To the above-named defendants or their attorney:

You are hereby notified that depositions of witnesses to be read in evidence in the above-entitled cause on the part of the plaintiffs will be taken at the law-office of Krum & Patrick, No. 307 Olive street, in the city of S't Louis, in the county of S't Louis and State of Missouri, on the 12th day of July, 1873, between the hours of eight o'clock in the forenoon and six o'clock in the afternoon; and that the taking of said

depositions, if not completed on that day, will be continued from day to day at the same place and between the same hours till complete.

KRUM & PATRICK,
Solicitors for Plaintiffs.

I accept due service of the above notice on me this 8th day of July, 1873.

SAMUEL S. BOYD,
Solicitor for Respondents.

32 *Deposition of Rufus W. Murphy.*

Circuit court of the United States for the eastern district of Missouri.

UNION PAPER-BAG MACHINE CO. ET AL., COMplainants,
vs.
MERRICK MURPHY ET AL., DEFENDANTS.

RUFUS W. MURPHY, of lawful age, being duly sworn, deposes and says:

I reside in the city of Saint Louis, No. 2121 Gamble avenue, and have resided here since the year 1868. I have been engaged in the paper and rag warehouse business. I have been so engaged since the year 1859 in Cincinnati and in the city of Saint Louis. I moved from Cincinnati to Saint Louis in 1868, and then began business here. I mean dealing in writing paper, paper, and bags, &c. Not any one at present is associated with me in business as partner, except as employees. Ingham Brothers, of Chillicothe, Ohio, were associated with me in business for a period of one year, in the year 1868. My co-defendant in this suit is my father. His name is Merrick Murphy. He resides in the city of Saint Louis, No. 1930 Clark avenue.

1. Q. Isn't your father interested with you in the business of making paper bags at this time?

A. That I don't want to state.

2. Q. Why don't you want to state it?

A. Simply because I don't wish to.

3. Q. What interest has your father with you in the business in which you are now engaged in the city of Saint Louis?

A. I don't want to answer as to any interest as between myself and my father. My father has no interest at all.

33 4. Q. Are you, then, solely interested as owner and proprietor in the business in which you are now engaged in the city of Saint Louis?

A. I am.

5. Q. Has your father been interested with you in business at any time since your removal to this city?

A. He has not.

6. Q. Has he any property, real or personal, in the State of Missouri to your knowledge?

A. That he would have to answer himself; he has none to my knowledge.

7. Q. Is your father an employee in your establishment or business at this time, and, if so, how long has he been so employed?

A. He is not in my employ.

8. Q. Has he been in your employ in any capacity since you have been in business or carrying on business in the city of S't Louis?

A. No.

9. Q. Is your father engaged in any business now, or has he been engaged in any business in the city of Saint Louis since he came here?

A. Since he came here he has been engaged in making paper-bag machines, and is engaged on one now.

10. Q. Is he working on his own account in what he is now doing?

A. Yes.

11. Q. At what place is he at work?

A. At No. 813 North Second street.

12. Q. Where do you carry on your business?

A. In the rear of 215 North Main street and at 813 North Second street.

13. Q. Have you any property in the city of S't Louis?

A. No real estate.

14. Q. Have you personal property?

A. Yes.

15. Q. What does it consist of and where is it?

A. It consists of rags, paper, paper bags, and wrappers, and everything necessary to carry on my business; the printing-presses
34 and a lot of type and stands, cases, and everything necessary for carrying on the printing business; three horses and two wagons.

16. Q. What is the whole value of your property?

A. I gave the statement to the mercantile agency as being worth $5,000; I mean to say that it is worth about $5,000.

17. Q. Are you using a machine for making paper bags?

A. Not at present.

18. Q. Have you used a machine for making paper bags in the city of Saint Louis at any time, and, if so, when you began using such machine and how long you continued its use?

A. I begun to use a machine about a year ago, and have used it off and on ever since.

19. Q. Have you at any time ceased to use a machine for making paper bags, and, if so, when?

A. I ceased only when I was out of paper.

20. Q. When you state in a previous answer that you are not running a machine at present, what do you mean?

A. I have no paper.

21. Q. Have you used more than one machine for making paper bags, and, if so, how many?

A. Only one.

22. Q. Who owns the machine that you are using?

A. Partly mine and partly father's.

23. Q. What proportion do you own?

A. I claim one-half.

24. Q. And your father the other half?

A. I suppose so.

25. Q. Have you a bookkeeper in your employment?

A. H. B. Fosdick.

26. Q. Where is he now?

A. At the store, I suppose.

27. Q. How long has he been in your employ?

A. Little over a year.

28. Q. Have you more than one bookkeeper?

A. That is all.

29. Q. You yourself understand bookkeeping?

A. I think I do.

30. Q. Did you ever keep a set of books?
35 A. Only for myself. I also kept books for my father, brother, and myself, who were in company in Cincinnati.
31. Q. How old are you?
A. Little over thirty-four years.
32. Q. What books do you keep in your business now?
A. Day-book, journal, ledger, and cash-book.
33. Q. When you are running your paper-bag machine, about how many hours do you run it each day?
A. All day if I can.
34. Q. How many hours?
A. I suppose ten hours.
35. Q. When operating your paper-bag machine, how many bags do you make on an average each day?
A. I do not know.
36. Q. Can't you approximate to the number?
A. I could not.
37. Q. Do you make as many as fifty thousand in the course of ten hours?
A. No.
38. Q. Twenty thousand?
A. I do not know.
39. Q. Can't you form some estimate?
A. No.
40. Q. When your paper-bag machine runs, say five hours, how many bags will it make in that time?
A. Of what size?
41. Q. Of different sizes.
A. Take number two as an average, about one hundred to one hundred and ten per minute.
42. Q. When did stop using your machine—on what day—when you say for want of paper?
A. About five weeks ago. I ordered some more at the same time and couldn't get it. They agreed to make it, but did not ship here.
43. Q. Do you say that you have not used your paper-bag machine at all during the last five weeks?
A. We have not.
44. Q. While your paper-bag machine is running do you give any personal attention in the operating of the machine or in the handling of the bags made by it?
36 A. I run the machine.
45. Q. How many assistants do you have?
A. Three.
46. Q. Is the machine operated by steam-power?
A. Yes.
47. Q. Who are your assistants usually in operating the machine?
A. Two small girls and small boy. Harry Kirk is the name of the boy. I only know that the girls are named Bridget and Mary.
48. Q. What duties does Harry perform?
A. He catches the bags and sometimes ties up the bundles.
49. Q. What duties do the girls perform?
A. They tie up the bags.
50. Q. Have you given now the names of all your employees and assistants who aid you in operating your paper-bag machine?
A. I have.

51. Q. How far is your store from the place where you manufacture paper bags?

A. Five squares.

52. Q. Do you keep any clerks besides your book-keeper?

A. No.

53. Q. Is Mr. Fosdick your book-keeper and salesman too?

A. Yes.

54. Q. When do you expect to start your paper-bag machine running again?

A. Monday morning.

55. Q. To what use do you put your wagons of which you have spoken?

A. The same as M'r Cupples used to—peddle around town—only one of them at present.

56. Q. Peddling what?

A. Wrapping-paper and paper bags; anything in the paper business.

57 Q. Give the name of your peddler.

A. Frank; that is all I know of his name.

37 58. Q. What was the name of the peddler who was driving the other wagon?

A Merrick Murphy, j'r.

59. Q. Your brother?

A. Yes.

60. Q. What are the sizes of the paper bags that you manufacture?

A. Quarter, ½, 1, 2, 3, 4, 5; 5 is the largest size that I make on this machine.

61. Q. Do you manufacture any larger-sized bags at all, larger than five?

A. Twenty-five and fifty pound flour-sack.

62. Q. Where and when do you manufacture those?

A. At 813 North Second street. I manufacture them by hand.

63. Q. You don't manufacture any bags, then, by machine larger than No. 5?

A. No.

64. Q. What has been the average price of the paper bags you manufactured by machine and sold here in the city of St Louis?

A. There is a regular card-price.

65. Q. What is that? Can't you remember?

A. I haven't got it here; I can't remember.

66. Q. Do you mean to be understood as saying that the sales you have made during the last three months of paper bags have been at the regular card-prices?

A. A discount from the card-prices from ten to twenty per cent.

67. Q. Do you know the concerns of H. B. Graham & Co., Libby & Williams, Smith & Yudell, and Schmieding, Diench & Co.?

A. Yes.

68. Q. Have you not made sales to each of those houses or parties of paper-machine bags during the last three or four months?

A. My clerk has.

69. Q. When you say your clerk, whom do you mean?

A. I mean M'r Fosdick.

38 70. Q. At what prices were your sales made to those houses respectively?

A. I could not say.

71. Q. Were your sales to those houses large or small?

A. Small; the largest amount of sales was to H. B. Graham & Co.

72. Q. The paper you buy for your machine is in rolls, is it not?
A. Yes.
73. Q. Of whom do you generally purchase your paper for your machine?
A. Cleveland Paper Co.; E. McCready, of Philadelphia; G. W. Erwin, of Middletown; Tytus Paper Co., of Middletown; those are all, I believe.
74. Q. You generally buy for cash?
A. No, sir; 60 and 90 days.
75. Q. Is your property encumbered by a chattel mortgage, or in any other way?
A. I give no papers of any kind to anybody excepting notes.
76. Q. What compensation do you allow your father for his half of the machine you used for making paper bags?
A. No stated price.
77. Q. Has your father a family of his own?
A. Yes; his wife, a son and daughter living with him.
78. Q. Under what name do you carry on your business?
A. R. W. Murphy & Co.
79. Q. Who is the company?
A. No one.
80. Q. Do your creditors know that there is no one engaged with you in business?
A. Since this suit I have had frequent inquiries; I never had any trouble before. I do not know whether they know or not.
81. Q. What amount do you estimate that you're worth after paying all your just debts and liabilities?
A. I could not state. I do not know what the stock would sell for if put up at sale.
39 82. Q. Can't you approximate to some sum that you think you are worth after paying all your just debts and liabilities?
A. From twenty-five hundred to three thousand dollars.
83. Q. Where do your largest creditors reside?
A. In Ohio. Their notes are payable in the city of S't Louis. None of them reside in the city of S't Louis.
84. Q. Have you or has your father constructed any paper-bag machines within the last six months or within the last year?
A. Only one we now have.
85. Q. Where was the paper-bag machine that you now have in use made, and by whom was it made?
A. One-half was made here and the other half in Cincinnati. It was made by father and myself.
86. Q. Where was the iron-work of the machine made?
A. Part in Cincinnati and part in S't Louis.
87. Q. In whose shops was part of the iron-work done in the city of S't Louis?
A. In mine, 813 North Second street.
88. Q. Are you a worker of iron?
A. Somewhat; not to any extent. I can do filing and drilling and such as that.
89. Q. Was not the iron-work of the machine that was prepared here in S't Louis made by the S't Louis Type Foundry Company?
A. They did what we could not do.
90. Q. By whom was the portion of iron-work made which was made in Cincinnati?
A. I do not know.

91. Q. By whom was the wood-work of your machine constructed?
A. By father. It is all iron except some braces.

Cross-examination:

92. X Q. You have stated in your direct examination that, since the commencement of this suit, inquiries have been made by your creditors as to your standing. Now, please state what, if any, effect the commencement of these proceedings has had upon your creditors.

40 A. General distrust among them all.

93. X Q. You state in your direct examination that you have made sales of paper bags lower than the card-rate. Please state what was the cause of such discount and when, about, such sales were made.

A. The injunction suit was the cause, and such sales were made about three weeks ago; I am not certain. There has been a general distrust about buying bags at any rate for fear they would be taken from me.

(Signed) R. W. MURPHY.

Deposition of Merrick Murphy.

I have resided in S't Louis about one year; prior thereto I resided in Cincinnati. I am not engaged in manufacturing. I have a bag-machine here that I take charge of. That machine is in house No. 813 North Second street. The machine belongs to me. I have all charge of it. That machine was made in Cincinnati. It was made by me. Blacksmiths done some work. My son, R. W. Murphy, did not assist me in any particular. He lived here when I made the machine. Since I have been here he has assisted some in the perfecting of it. I know nothing about the firm of R. W. Murphy & Co. I know R. W. Murphy. I have seen the firm-name of R. W. Murphy & Co. There was somebody in company when he first came here. His was Ingham, of Chillicothe, Ohio. He was in partnership with my son about one year here. My son came here about five years ago to establish himself in business. I don't know that there is any one now in partnership with my son. My son's store is in the rear of No. 213; I think an alley on Olive street, between 2d and 3d streets. That is not the place I alluded to as No. 813 North Second street. I don't know that my son has any other place of business. My son runs paper-wagons—two of them—trades in rags, and papers, and old metals. That is all that I know of. He manufactures
41 and deals in paper bags. His manufactory is No. 813 North Second street. He manufactures by machinery and hand both. He has been engaged in that business perhaps six months from the beginning. He uses a machine of my own invention, entirely new. The machine is called the "paper-bag machine." He uses one machine. There is only one paper-bag machine at 813 North 2d street. That machine belongs to me. I have charge of it and my son runs it. I keep the machine in repair and the perfecting of it at the same time. I help in the manufacture of paper bags when it is necessary. I am at No. 813 North Second street every day. I have been there, I think, except the 4th day of July and Sundays, and also went to Cincinnati during the time he manufactured bags. I go there at seven o'clock in the morning and quit at 6 o'clock in the evening. I am occupied generally all day. I am getting up patents for another machine, a larger one, when I am not repairing the other machine; that is, when I am not at work upon the machine now in operation. I follow no business except that which I follow at 813 North Second street. My son, R. W. Murphy, attends to the machine. My son has been negotiating for half of that machine. He

expects it, but nothing definite has been arrived at as yet. He pays me for the use of the machine. There is no agreement as to the amount paid me for the use of it. I draw on him for what I need for a living. There is no understanding what sum to be paid. I live at No. 1930 Clark avenue; I keep house. I have a wife and one child. I am not worth much. I consider I am worth about $50,000. The $50,000 consists of paper-bag machine, my own invention. I consider my invention worth to me $50,000. I have no other property besides my invention. I do not possess any real estate, cash, or personal property other than my invention. I have drawn on my son, R. W. Murphy, not since January, 1873. I have drawn on him to the amount of not exceeding $400 or 500. I have a number of sons besides R. W. Murphy. I have a son by the name of Merrick Murphy, j'r. He is aged about 42 years. He is mill-wright. He works at any kind of work he can get—heavy work. He is now working at some grist-mill in the northern part of the city. There is a grandson of mine named Merrick Murphy. He is in the city now. He furnished things
42 about the machine, which he has charged to me, but I have no account of it. I do not know what amount he has furnished to me for that purpose. I cannot tell you anything about it. He has furnished things for the machine and paid for them; I suppose charged to me; not as much as $1,000 for that alone; it may be for rent of buildings, but I have no account of that, either. We have no settlement at all since this business began. There was no agreement about a salary to be paid by him to me. My idea in business has been to perfect the machine, and get it so that I could beat the bag-ring out. I had no idea of any compensation than to get a living while I could perfect the machine. My son induced me to come here by his having a steam-engine of his own and printing-presses, and start the bag-machine without any cost. I agreed to come and did come. There was no understanding between my son and myself when I came as to my compensation. There was no agreement as to compensation when I allowed my son the use of the bag-machine. I do not keep a bank account in St Louis. I am not interested with my son in the manufacture of paper bags at 813 North Second street. I am not in debt now except to my son. I do not know how much I am indebted to my son now; there has been no settlement. I have no idea. I have no debts other than those I owe to my son. I do not consider myself as in the employ of my son. I came here about a year ago. The paper-bag machine began to run about nine months ago. I came here in June a year ago, and it took a long while to put it up. I commenced to use it about a year ago. He used no more than one machine that I know of. He had a machine partly finished by himself and my son of Cincinnati. I never saw him use it. They employed John Reed, of Cincinnati, to make the machine. When he worked on it he worked in my store, 33 Water street, in Cincinnati. Sometimes the machine runs one, two, three, or four hours, just as the machine keeps in order. I couldn't tell the average time it runs. I don't think I ever saw the machine run a day without getting out of order. Some parts of it are made too light. Parts that were iron ought to have been steel.

94. Q. You state, then, that you are unable to specify the parts of the machine by name which are not strong enough?

43 A. No names are given to them.

95. Q. Do you know what parts they are?

A. Yes.

96. Q. Specify them in your own language; denominate them to suit yourself.

A. The motion being entirely new for the machinery, I have no name in mechanics that I know of to indicate it.

97. Q. If you can't specify them by name, describe the parts by their uses.

A. I could describe them to a mechanic, but not to a man who is not a mechanic.

98. Q. Suppose that I am a mechanic; describe them to me.

A. The machinery that I have in cutting the paper is a small cylinder, 4 to 5 inches in diameter, a little dog playing around upon the periphery and the paper to be cut. There is a notch in the cylinder to let the cutter down at the right time—first cylinder, and is now cast iron. The dog is of brass—now it is steel. Now I find the cylinder is wearing, but that will have to be made of steel in the end. I believe that is all I can describe.

99. Q. Is there any other part of the machinery which gets out of order?

A. Occasionally there is.

100. Q. What parts are those? Describe them by their uses.

A. The emery gets off the friction-belt.

101. Q. Is there any other portion of the machinery that gets out of order?

A. Yes; all parts get out of order.

102. Q. Are there any other parts that specially get out of order?

A. None specially that I can think of.

103. Q. When that machine is running and in good condition, how many bags of various sizes, on an average, will it make in a day?

A. Small bags and no stoppages, it will make 60,000 to 100,000.

104. Q. How many working-hours per day would that be?

44 A. Ten hours. It has never done a day's work yet. When the steam-engine was running very fast, I have seen it make 150 per minute.

105. Q. What are the various sizes manufactured by your machine?

A. All sizes, including No. 5.

106. Q. Taking size No. 2 as an average, how many bags would your machine manufacture a day?

A. I never tried it; it never run a day.

107. Q. Is that machine working now?

A. No, sir; it stopped working when the writ was served upon us. It is not working to-day. I expect it will be at work to-morrow.

108. Q. Do you know at what prices your son sold these bags?

A. I do not; I have no information upon that subject.

109. Q. How many of these machines have you made?

A. Only this one now working. I was over two years making it.

110. Q. Have you any contracts for manufacturing this machine for any person?

A. I have had four or five applications from different persons. There is no agreement yet. There is one application from Canada, one from Cleveland, one from Milwaukee, and one from Louisville, Kentucky. I cannot tell the names; I will look among my papers this afternoon and will try and find them. I commenced this machine little more than two years ago, about the first of August next. I commenced it in Cincinnati, Ohio, 33 Water street, up-stairs in the building. This place was the place of business of Murphy & Son. Prior to the commencement of this machine we carried on the rag business at that place. My son at

that place was Justin. He gave up the business there—that is, the store—and came here. I expect he failed in business. I did not see anything of it. I had a notice to that effect. He did not go into bankruptcy. I was not his partner when he failed. I don't recollect that there were any debts of the firm of Murphy & Son when I left Cincinnati. He did not agree to assume the indebtedness of the firm; I think so. Myself alone commenced the construction of this machine in
45 Cincinnati. My attention was directed to the construction of the machine by Chatfield, of Chatfield & Wood, in a conversation I had with him. Chatfield & Wood were the plaintiffs in the bag case in Cincinnati. They belong to the bag ring now.

111. Q. What case was it that you refer to in which Chatfield & Wood were plaintiffs in Cincinnati?

A. The case was the Bag C . against Nixon & Co.

112 Q. What was that case about?

A. I suppose it was an infringement on their rights.

113. Q. Infringement upon their rights in respect to what?

A. Upon their rights in making paper bags.

114. Q. Were Chatfield & Wood connected with the Paper-Bag Co. in that case as plaintiffs?

A. Chatfield told me they belonged to the Paper-Bag Co.; that they would stop Nixon running in 30 days.

115. Q. I understood you to say yesterday, during your examination, that your attention was directed to the construction of the paper-bag machine by a conversation you had with M'r Chatfield, of Chatfield & Wood, of Cincinnati; was that your statement?

A. Not to the construction of my bag-machine. I learned of the magnitude of the Bag Company of M'r Chatfield at the time in the conversation.

116. Q. What do you mean by the magnitude of the Bag Company?

A. The different companies that belonged to the Bag Company. I had not heard until this conversation anything about the magnitude of this company.

117. Q. What was said by M'r Chatfield in that conversation? Detail the conversation.

A. He said one company was located in Boston, one in Philadelphia, one in Cincinnati, one in Chicago, and one in S't Louis.

118. Q. Well, what did he say in respect to those companies?

A. He said they were a very rich concern.

119. Q. Is that all he said about them?

A. I don't recollect anything else. That was the time he said he was going to prosecute Nixon & Co.

46 120. Q. Did you have more than one conversation with M'r Chatfield in relation to the Paper-Bag Co.?

A. Yes, sir.

121. Q. How many conversations did you have with him?

A. Two or three.

122. Q. How long after the first was the second conversation?

A. Between one and two months.

123. Q. Detail the second conversation.

A. I showed him a paper bag, cut and folded, not pasted, that I had made myself by machinery. No notches in it—smooth. He asked me, then, what I was going to do with the machine. He asked me whether I used a tube to make it. The conversation turned upon the question whether I was infringing by my machine their rights. I told him my machine was no infringement at all. I had seen their machine. I said

to him that the whole of my machine was not as long as his desk, and pointed at it. He asked questions whether I used a tube or a former. I replied no; I used no former like his, and no tube at all. He asked me, then, "What are you going to do with it when it is completed? Are you going to run it yourself?" I answered, "I haven't made any calculations about it yet." I don't think of anything more.

124. Q. How long after the second conversation was the third?

A. I think one or two months.

125. Q. What was that conversation about? Detail it.

A. I cannot tell anything at all particularly about the third conversation; we had conversations frequently about the patent.

126. Q. Had you commenced to construct your machine at the time you had the first conversation with Chatfield?

A. I had not.

127. Q. How long after that conversation was it that you commenced your machine?

A. Pretty soon.

128. Q. Give about how long.

A. Three weeks, perhaps.

129. Q. Did you know M'r Nixon, the defendant in that case?

47 A. Very well.

130. Q. How long have you known him?

A. Six or seven years.

131. Q. Did you ever see his machine?

A. I have not.

132. Q. Did you ever have any conversation with him about his paper-bag machine?

(Objected to as being incompetent and irrelevant.)

A. I have spoken to him three years or more. I never had any conversation with him about the bag business.

133. Q. Did you ever have any conversation with M'r Nixon about his paper-bag machine?

(Objected to as incompetent and irrelevant.)

A. Never.

134. Q. Did you ever have any conversation with M'r Nixon about your paper-bag machine?

(Objected to as incompetent and irrelevant.)

A. No.

135. Q. Did you ever have any conversation about the Union paper-bag machine, belonging to M'r Chatfield and others, with M'r Nixon?

(Objected to as incompetent and irrelevant.)

A. None.

136. Q. What was it that directed your construction of the paper-bag machine?

A. My own brain.

137. Q. You don't understand my question. What was it that caused your own brain to employ itself about inventing a paper-bag machine?

A. I found that the bag business had gotten to be a monopoly. I went to work and made a machine for making paper bags.

138. Q. When was it that you first found that the paper-bag business had gotten to be a monopoly?

A. In my first conversation with M'r Chatfield.

139. Q. Was it after that conversation that you thought the invention of such a machine as that would be a valuable one?

A. It was.

48 140. Q. Did you, at the time of that conversation with M'r Chat-

field, inform him that you would set yourself to work to invent a paper-bag machine?

A. I had no idea of it at that time.

141. Q. It was not until three weeks afterwards that you formed the idea of inventing the paper-bag machine?

A. Yes.

142. Q. What do you say was the style of your firm at 33 Water street?

A. Murphy & Son.

143. Q. Specify the various articles that Murphy & Son dealt in.

(Objected to as incompetent and irrelevant.)

A. The principal thing was cotton rags.

144. Q. What else?

A. Soft woolen rags.

145. Q. Anything else?

A. Hard woolen rags, tailors' chips, old rope, gunny-bagging, old metals. That comprises all that I can think of.

146. Q. You have stated in this deposition that you have seen a Union paper-bag machine, in which M'r Chatfield was interested. Where did you see it?

A. In the old store, six or seven years ago.

147. Q. Where is the old store?

A. Between Third and Fourth streets, on Walnut, in Cincinnati.

148. Q. Who owned the machine?

A. I don't know.

149. Q. Was M'r Chatfield interested in it then?

A. The firm was Chatfield, Wood & Nixon.

150. Q. How often have you seen that machine of the Union Paper-Bag Company?

A. Only twice.

151. Q. When was the second time, and where?

A. About four years ago, in Philadelphia.

152. Q. At what place did you see it there?

A. At the paper-mill said to belong to Martin Nixon. The bag-machine was in the loft.

153. Q. How came you to see that machine at that time?

49 A. Out of curiosity.

154. Q. Have you ever seen the Union paper-bag machine in Cincinnati inside the last three years?

A. I have not.

155. Q. Have you inside of the last three years procured or had in your possession a description of the various parts, the principle of action, and of the details of the Union paper-bag machine patent?

A. I have examined the patents of paper-bag machines that have come out at Washington; all of them.

156. Have you inside of the last three years procured or had in your possession a description of the various parts, principle of action, and of the details of the Union paper bag machine patent?

(Objection to question by defendants' counsels as being indefinite in not limiting the inquiry to the particular patent in issue here.)

A. Nothing but what is patented. Nothing but what I could find in books that I had borrowed.

157. Q. What books did you consult?

A. The books containing the various patents.

158. Q. What books are they; what are they called?

A. Books of patents, obtained from the Patent-Office, known as Patent-Office Reports.

159. Q. Where did you get those books?

A. Some of them from the library in Cincinnati, and some of them here.

160. Q. Did you ever procure from Washington any papers relating to patent issued upon the Union paper-bag machine?

A. No.

161. Q. Have you been to Washington inside of the last three years?

A. No.

162. Q. Have you procured from Washington inside of the last three years, from the Patent-Office, any papers whatever respecting paper-bag machines, other than the particular machines which you claim as your invention?

A. None.

50 163. Q. Have you inside of the last three years had in your possession, besides the Patent-Office Reports mentioned by you before, any papers whatever having relation to paper-bag machines other than your machine?

A. None.

164. Q. Where did you conduct your experiments in Cincinnati, trying to introduce a paper-bag machine?

A. In my store, second story, 33 Water street.

165. Q. Did you at first make an entire machine or a model?

A. The first machine was full sized; got up cheap, of wood mostly, for an experiment.

166. Q. How long ago was that first experimental machine completed?

A. Eighteen months ago.

167. Q. Did anybody assist you in your labors in producing that machine?

A. My son turned the grindstone.

168. Q. Was any further assistance rendered to you besides turning the grindstone?

A. I had to hire the blacksmith's work done; what I couldn't do in the store myself.

169. Q. Well, did you have to hire any other work done?

A. I had to hire iron-work turned and finished.

170. Q. Anything else?

A. I don't know of anything else. Joe Slusher was my blacksmith; his place of business was two or three doors from mine. I can't tell the name of the man who did my iron-work and polishing; he was in Vine street.

171. Q. You procured a patent for your machine at Washington, did you not?

A. I employed a patent agent to get it.

172. Q. What was it that you patented?

(Objected to, as it calls for the contents of written instruments, and also as asking a question of law.)

A. I must refer to the patent. I cannot tell without the patent.

173. Do you mean to say that you are unable to tell what your patent is for, unless you have an opportunity to refer to the patent itself?

51 A. The patent is for making paper bags.

174. Q. There are other patents issued for making paper bags, besides your own, are there not; if so, how many?

A. I have examined twelve or fifteen.

175. Q. Will you state in what matters of construction and for what principles of action your machine is patented?

(Objected to as calling for the contents of a written instrument, and also as asking a question of law.)

A. I couldn't state without the model or drawing is before me.

176. Q. Do you mean to say, M'r Murphy, that you are unable to specify for what reasons and upon what your patent was issued, unless you are aided by a drawing or a model of your machine?

A. I don't carry such things in my head and I cannot specify correctly.

177. Q. Can't you state generally what things in the construction of your machine you claim to be your invention?

(Objected to as it calls for the contents of a written instrument, and as calling for a question of law.)

A. I cannot without having the patent.

178. Q. Can you specify any particular thing in the construction of your machine which you claim to be your invention?

(Objected to as calling for the contents of a written instrument, and as calling for a question of law.)

A. I cannot describe anything definitely.

179. Q. Who was it that drew up your papers applying for a patent?

A. Frank Millwood, of Cincinnati.

180. Q. What is his business?

A. Solicitor of patents.

181. Q. When was it you applied for your patent?

A. Two years ago last May. I think in the month of May, 1871. No; it was last May, 1872.

182. Q. While you were in Cincinnati, before coming to S't Louis, in a conversation with you, did M'r Chatfield ever inform you that
52 you could not run your bag-machine without infringing their patent, and that if you did run your machine they would fight you?

A. Nothing like that.

183. Q. What did he say?

A. He said it infringed upon the patent of the Union Paper Bag Machine Company; they would commence suit against me. That conversation took place when I showed him the paper I had cut in the form of a paper bag.

184. Q. When M'r Chatfield made that statement to you, did you reply to him that you did not intend to run your machine in their territory, and that you intended to put it up in S't Louis?

A. Nothing of the kind was ever said at that time. When I came away, perhaps a year and nine months after this conversation, I told told him I was going to put it up in S't Louis.

185. Q. Did you at any time within the last three years tell M'r Chatfield that you did not intend to run your machine in his territory, but that you intended to put it up in S't Louis?

A. No, not a word of it. When I came from there I was going to put it up here. There was nothing said about his territory.

186. Q. Did you ever say in a conversation with M'r Chatfield in Cincinnati, that you did not intend to run your machine in Cincinnati, but intended to put it up in S't Louis and fight Cupples?

A. There was never a word of the kind said There was nothing of the kind said, except that I was going to put it up in S't Louis, and that was when I had the machine all made and was about coming to S't Louis.

187. Q. Have you been able since yesterday to find out the names of

those parties in Canada, Louisville, and elsewhere who applied to you to purchase your patent bag-machine?

A. I didn't think of looking for them when I was at home last night.

188. Q. Will you look to-night?

A. I will, if I think of it. When I get home at night I don't feel like hunting around much.

189. Q. Well, will you look or will you not?

A. I will, if I remember. I'll try and remember it to-night, and try to find them.

53 190. Q. Do you claim that you have invented the form of knife by which your paper-bag machine cuts the paper used in making the bag into that form, which makes the projecting edge or lap of the bag, without which edge or lap the bag could not be made or pasted?

(Objected to as calling for the contents of a written instrument, and assuming *it* as a fact that of which there is no evidence, and as irrelevant.)

A. In the operation of my machine the revolving cutter cuts the paper as described in my patent.

191. Q. Do you claim that you have invented the form of knife or cutter by which your machine cuts the paper used in making the bags into that shape which leaves a projecting edge or lap used in pasting the bag?

(Objected to as calling for the contents of a written instrument, as assuming a fact that of which there is no evidence, and as irrelevant.)

A. I claim all the patent allowed me.

192. Q. Do you claim that you have invented the form of knife or cutter by which your machine cuts the paper used in making the bags into that shape which leaves a projecting edge or lap used in pasting the bottom of the bag?

(Objected to as calling for the contents of a written instrument, as assuming a fact that of which there is no evidence, and as irrelevant.)

A. I claim that the revolving cutter and stationary knife leaves the paper in that form in making bags on my machine.

193. Q. M'r Murphy, could you make a paper bag on your machine without first cutting the paper into just such form so as to leave the lap or projecting edge used for pasting the bottom?

A. I cannot without altering the knife.

194. Q. Can you, M'r Murphy, make a paper bag upon your machine as now patented, of which you exhibited a model in the United States district court a few days since, without first cutting the paper used in making the bag into such a shape as to leave the projecting edge or lap before spoken of?

A. I cannot.

54 195. Q. Do you claim the revolving cutter used by you on your machine as your invention?

(Objected to as incompetent, irrelevant, calling for the contents of a written instrument.)

A. I do.

196. Q. Do you also claim as your invention the stationary knife used in conjunction with the revolving cutter, which cuts the paper so as to leave the projecting edge or lap before spoken of in this deposition?

(Objected to as incompetent, irrelevant, calling for the contents of a written instrument, and assuming as a fact that of which there is no evidence.)

A. I do. I want it understood that the revolving cutter do esn't stop

it has a steady motion. These other machines stop the cut with the same shaped stationary knife.

197. Q. In making a paper bag upon your machine, are you not obliged to form the paper used in making the bag into a tube or cylinder, pasting and closing the bottom of the bag?

A. I cannot make any tube on my machine. No, I do not.

198. Q. In making a paper bag upon your machine, are you not obliged to form the paper used in making the bag into a cylinder shape before pasting and closing the bottom?

A. I am not.

199. Q. By your machine do you form the paper into any shape in order to enable you to close the bottom of the bags?

A. We do.

200. Q. Into what shape do you form it by your machine before pasting and closing the bottom of the bag?

A. We turn over one side at a time flat, and then the other.

201. Q. After you have turned over one side, then the other, and got them both down, in what shape does your machine leave the bag after that has been done?

A. It comes out finished.

202. Q. After you have turned over one side, then the other, and got them both down, in what shape does your machine leave the bag after that has been done without proceeding farther in any of the stages of manufacture?

55 A. It leaves it down flat.

203. Q. After the two sides are turned down, what is the next step your machine does?

A. It turns up the bottom.

204. Q. When is this part, the two sides pasted down, one upon the other?

A. After it is folded down it is immediately pasted.

205. Q. That is to say, when one side is folded down over the other the next thing to be done is to paste the two sides together?

A. Yes, sir.

206. Q. Are the two sides folded down before or after the form of the bag is cut out?

A. After.

207. Q. The next step after the pasting of the sides together is by your machine to turn up and paste down the ends of the bag?

A. Yes, sir.

208. Q. Take a bag made by your machine, completed so far as pasting down the sides of the bag is concerned, but without having gone so far in the process of manufacture as to have had the end of the bag either turned up or pasted down, would not such a bag only thus far completed, when expanded by air, assume the shape of a tube or cylinder?

A. Certainly it would.

209. Q. You make bags of different sizes, do you not, on your machine?

A. The machine does, that is, my machine.

210. Q. By what instrumentality does your machine graduate or form the different sizes of bags which it makes?

A. By altering the stationary knife to the width of the bag we want.

211. Q. Is there any other means employed by your machine besides altering the width of the knife, by which the various sizes of bags made by it are graduated?

A. We move the paste to suit the width of the paper, and enlarge or diminish the frames to suit the width of the paper bag.

56 212. Q. What is the former, as used in your machine? Describe it.

A. It is a metal plate, polished smooth on the under side, about three feet long, and as wide as you want the size of the particular bag.

213. Q. What width of former do you use on your machine, so far?

A. All numbers from one-quarter to No. five—including No. 5.

214. Q. How wide, in inches, is No. 5?

A. About nine inches, I think.

215. Q. How thick is the plate composing the former?

A. From one-eighth to one-quarter of an inch.

216. Q. In the process of manufacturing a bag on your machine, to what use is the former applied? Describe its use.

A. To hold the paper from the belt while it is in motion, to draw it along and turn it over to keep the width.

217. Q. For what purpose does the former turn the bag while in process of manufacture?

A. To keep the bag the right width.

218. Q. How do you mean the former turns the bag?

A. I don't mean the former turns the bag; I mean it keeps it the right width.

219. Q. Do you wish to be understood to this effect, that while the process of turning down the two sides of the bag one after the other is going on in your machine, the former rests upon the centre of the paper of which the bag is to be made, and the two sides of the bag are folded over, the upper surface of the former thereby preserving the size of the bag to be made the same as the size of the former?

A. That is exactly. It could not be better worded.

220. Q. Could you make a paper bag without the use of your former with your machine?

A. No.

221. Q. By what process or means does your machine lift up and turn over the former, the two sides of the paper which is to constitute the bag, preparatory to the pasting of the two sides together?

57 A. By the use of strips of copper or wire bent to suit the situations of the paper.

222. Q. In what form are the plates so as to effect the turning over of the paper?

A. It is placed further from the paper at the start, in such a form that it folds the bag over in the centre.

223. Q. How long is your machine?

A. Between seven and eight feet.

224. Q. The bag goes in one end and comes out the other, does it not?

A. It does.

225. Q. How long a distance does the bag travel from one end to the other?

A. Seven or eight feet.

226. Q. How far does it travel in the machine until it reaches the former?

A. Between one and two feet.

227. Q. How far does it travel before it leaves the former?

A. The former is about three feet long.

228. Q. Is the former stationary?

A. The former is hooked at the upper ends so that it can swing at the bottom end.

229. Q. How do you mean by swing?

A. When we start the machine and put the former on, the belt will swing it into that place.

230. Q. In the process of making bags, does the former move backward and forward, or is it stationary?

A. Stationary.

231. Q. When is it the end of the bag is pasted down; after it leaves the former?

A. Yes.

232. Q. Are the pieces of wire of copper which turn the sides of the bag over the former ready to be pasted to the bag movable or stationary?

A. They are movable. The tender moves those things to suit himself.

233. Q. In what way do you mean that they are movably to increase the sides of the bag, or do they move along the edge of the bag?

58 A. They move when they increase or diminish the size of the former, otherwise they are stationary.

234. Q. If the former is stationary and the pieces of copper or wire which turn up the sides of the bag are stationary, what part of the machinery is it which moves the sides of the paper which are to form the sides of the bag to be turned down and pasted together against pieces of copper or wire which turn the sides down?

A. The belt draws the paper against the pieces of wire.

235. Q. In what way does your machine apply the paste to the sides of the bag?

A. By a metal belt, an endless metal belt running through the paste over the pulleys against the part of the paper to be pasted down.

236. Q. Is there anything in your machine which holds the paper against that metal belt so that the paper will take the paste?

A. The belt is strained tight, and we push it against the *the* paper.

237. Q. What is the process in your machine by which it pastes down the end of the bag?

A. I have a paste dish over the machine, with a small opening at the bottom, and lets the paste on to a roller; then a knife sticks against that roller, and folds the paper down between the drying cylinder and the felt, and holds the bag upon the cylinder until it comes out.

238. Q. What does the roller which receives the paste consist of?

A. Brass.

239. Q. Is that roller which receives the paste run by cogs or by friction?

A. It runs by belt.

240. Q. Is the belt immediately connected with that roller, or does it communicate its power to the roller through cogs?

A. There are no cogs about that part of the machine.

241. Q. What is the great desideratum in manufacturing paper bags by machinery; what is the object sought after?

A. I suppose it is dimes.

242. Q. Yes, that is the ultimate object, undoubtedly. What
59 is the prime object of making a machine to make paper bags as contradistinguished from making paper bags by hand?

A. To save time and expense, if nothing else.

243. Q. Is there any waste of paper saved by making bags by machinery instead of by hand?

A. I expect there is by machinery.

244. Q. Bags by your machine are made from a continuous roll of paper, are they not?

A. They are.

245. Q. The rolls are each received by you from the manufactory cut in width to suit the different sizes which you make, are they not?

A. They are.

246. Q. Is there any waste of paper in making the bags by your machine?

A. There is waste to all machines; no more to mine than to others.

247. Q. The waste in your machine consists not in the cutting of the paper into the form of a bag, but the end of the roll, which is not used?

A. There is that waste, and also every time the paper is broken in winding the machine at the paper mill.

248. Q. Then the only waste by your machine arises from the non-use of the end of the roll and from the imperfections in the manufacture and rolling of the paper, which is broken in the machine or before it reaches the machine?

A. Yes; but the paper is broken in the paper-mill machine and not in the bag-machine.

249. Q. M'r Murphy, does not the profit of manufacturing paper bags by your machine consist largely in the saving of waste paper by cutting the bags from a continuous roll?

A. I never figured up the profits on it at all; I don't know anything about it.

250. Q. Independently of your having figured up the profits upon it, does not the saving of waste of paper by cutting bags from a continuous roll, in your judgment, largely affect the profits made by manufacturing paper bags by a bag-machine?

A. I suppose it does. I don't know what it would be if made by any other way than a roll; I never figured it up.

60 Not being able to complete the taking of said depositions by reason that the hour of adjournment has arrived, I adjourn the further taking of the same till to-morrow, then to be continued at the same place and between the same hours mentioned in the annexed notice.

M. J. SULLIVAN,
Notary Public, St Louis County, Missouri.

Pursuant to adjournment, on the 16th day of July, A. D. 1873, between the hours of eight o'clock in the forenoon and eight o'clock in the afternoon, I continued the taking of said depositions, as follows:

Merrick Murphy, in continuation of his deposition, commenced on the 14th day of July, 1873, on his oath further says:

Cross-examination by S. S. Boyd, esquire, defendants' attorney:

X 251. Q. M'r Murphy, what is your regular business, and what has it been during your life?

A. I am a millwright, and have worked at the business until within the last ten years. I have been building paper-mills and paper-machinery principally. While so employed I am or have been accustomed to make working-drawings for machinery and to construct machinery for working-drawings.

X 252. Q. Please look at the patent now handed you, marked "Defendants' Exhibit B," and state whether that is the patent you have referred to in your direct examination.

A. Yes, sir; that is the one.

(Defendant now offers in evidence letters-patent No. 135145, granted Merrick Murphy, for improvement in paper-bag machines, and dated January 21st, 1873.)

X 253. Q. Please state whether the paper-bag machine upon which the paper bag referred to by you in your direct examination, it having been shown to M'r Chatfield, was constructed substantially in accordance with the specification of the patent just shown.

A. It was shown to him by myself.

61 X 254. Q. Please state whether the paper-bag machine referred to by you in your direct examination as being used in S't Louis by yourself and by R. W. Murphy is, with the exception of the cutting-device, which you have more particularly described in detail in such direct examination—is substantially the same as that shown and described in said letters-patent No. 135145.

A. The same; that is, it is substantially the same, except the cutting-device.

X 255. Q. You have stated in your direct examination that you examined all the patents for paper-bag machines that have been granted; please state what was the purpose and object of such examination.

A. To keep from infringing upon anybody's rights or claims.

X 256. Q. You have stated in your direct examination that the bag-machine now used by you was liable to get out of order; please state whether such liability did not arise from a want of proper adjustment of the various parts of the machine, or from the use of improper material for the working parts, or from both causes combined.

(Objected to on the ground that the question of the causes of the derangement of defendants' machine were not enquired into in chief, and the question is leading, and suggests the answer to the witness.)

A. The principal cause was because the machine was gotten up too cheap and in using improper material; that is to say, in using iron keys instead of steel ones, and nuts working off from bolts not well made.

X 257. Q. How soon after making the paper bag that you showed M'r Chatfield did you show it to him?

A. A very few days.

X 258. Q. In your answer to the 123d direct interrogatory appears this language, "He asked me then what I was going to do with the machine; I used a tube to make it." Please state whether that is correct, or, if not, what was your answer.

A. That is not correct; it does not read correct. Chatfield asked me if I made my bag with a tube and former. I think that is all he asked me about the machine then.

62 X 259. Q. Please state whether the paper, and before it is cut as well as after it is cut in your machine, has a continuous or intermittent motion.

A. It has a continuous motion.

X 260. Q. In the machine used by you, at what stage of the process is the side flap of the bag pasted?

A. Before it is cut.

X 261. Q. Please state what, if any, device there is in your machine to bring the side flap of the bag or the edge of the paper that is to receive the paste in contact with the paste-furnishing device.

A. There is a movable paste-box, which moves the belt up against the paper. I don't understand the question.

X 262. Q. When your paper leaves the roll, where does it go?

A. Directly under the cutter.

X 263. Q. Am I to understand from that that there is no mechanism interposed between the spindle holding the roll of paper and the cutting-device?

(Objected to as not growing out of the cross-examination, and as leading.)

A. There is machinery, metal belt and pulleys, which put the paste upon the paper.

X 264. Q. What part of such machinery, if any, causes the edge of the paper to come in contact with the paste-distributing belt?

A. The paper-roll.

X 265. Q. After the edge of the paper has received the paste as stated, in what manner and by what device is the paper brought so as to be operated upon by the cutting-device?

A. Drawn by rollers.

X 266. Q. What is the device, if any, by which the paper, after it is severed by the cutting-devices, is carried forward?

A. By a leather belt with emery glued upon the belt. The belt carries the paper and the rolls carry the belt.

X 267. Q. In what manner does the emery-belt carry the paper forward?

A. By the former pressing the paper down by its weight; if not heavy enough, we put on strips of lead to hold it down tight.

63 X 268. Q. You have stated in your direct examination that this former acts to preserve a uniform width in the bag and to enable the sides to be folded down, and you have now stated that it performs the further office of causing the necessary friction between the emery-belt and the paper. Now please state what, if any, other function such former has.

A. It enables it to fold the bag down. I don't know that there is any other function performed by it.

X 269. Q. Please state whether such former has any connection with, or any influence upon, the action of cutting-device.

A. It assists in straining the paper whilst it is being cut.

X 270. Q. Please state how it assists.

A. By its weight; if they want more friction they put on weight.

X 271. Q. Please state what, if any, difference there is in the thickness of the former at one end as distinguished from the other.

A. The former is all even in its thickness.

X 272. Q. Please state why it is necessary, if such be the fact, to have the former of any particular thickness, or what guide have you in determining the thickness of the former.

(Objected to as leading and as assuming a fact,)

A. The former made of tin would give the width of the bag, but there is no stiffness or weight to it, and the paper wouldn't draw along, and the weight and stiffness are what are wanted to make the paper move.

X 273. Q. Please state whether a former could be used in your machine that was rigidly supported at either or both ends.

A. It could not.

X 274. Q. Please state whether a former could be used in your machine unless it had free vertical and lateral movement at both ends, but had no longitudinal one.

(Objected to as leading, and as being predicated upon a state of facts not proved.)

A. It could not.

X. 275. Q. Please state, when it is necessary in your machine to

64 make bags of different length, what, if any, change is made in the position or otherwise of the pasting and folding blade.

A. None at all.

X 276. Q. Please state, when it is necessary in your machine to make bags of different length, what, if any, change is made in any of the parts that contribute to the pasting and closing of the bottom of the bag.

A. Not any.

X 277. Q. What actually is the function and office of the pasting-blade, and how does it act?

A. The pasting-blade forces the paper between the drying-cylinder and the felt; takes the paste from a roller under the paste-box on top of the machine. The paste-knife moves on a quarter-circle.

X 278. Q. Please state whether or not it is possible by the machine used by you or R. W. Murphy to cut a continuous roll of paper, after said paper has been formed into a bag, the ends being open in such manner as to leave one side of the bag with a projection.

A. It cannot without altering the knife. It will cut any form that you have a mind to make the knife.

X 279. Q. Please state whether or not it is possible, by the machine used by you or R. W. Murphy, to form from a continuous roll of paper after said paper has been formed into a bag, the ends being open in such manner as to leave one side of the bag with a projection.

A. I do not understand the question.

X 280. Q. State whether or not it is possible, by the machine used by you or R. W. Murphy, to cut a continuous roll of paper a tube, and then to cut said tube of the proper length for a bag, and in such manner that there shall be a projection for the bottom of the bag.

(Objected to as leading.)

A. It cannot. A tube cannot be made on my machine.

Redirect examination:

281. Q. The machine now in use by you and R. W. Murphy you have stated is substantially the same as the machine you patented by
65 the letters-patent to which you alluded in your cross-examination. What do you mean by substantially the same? Is there any difference in the machine used by you or R. W. Murphy and the one patented?

A. The same, with the exception of the cutter; that is the difference, and two belts instead of one.

282. Q. In what respect does the cutter of the machine now used by you and worked by R. W. Murphy differ from *and* cutter of the machine for which you have received letters-patent?

A. The one for which I received the letters patent cuts a smooth edge and the one I use now cuts a saw-edge.

283. Q. Is it the same knife and cuts the same form of paper, with the exception that the blade is made of serrated teeth, or like a saw?

A. It is nothing at all like it; it is a different thing altogether.

284. Q. Is there any other difference in the form of the knife now used by you and the one used in the machine for which you obtained letters-patent, than this difference—that the knife used in the machine for which you obtained letters-patent presented an even edge, and the knife now used by you and R. W. Murphy presents a serrated or saw-like edge?

A. A wide difference.

285. Q. What is that difference? Describe it.

A. In the patent I used a revolving steel knife, and the stationary knife is also steel. The knife I use now is a piece of hoop-iron, fixed to the revolving heads of the cutter, so that the knife makes a quarter-circle when it strikes the paper, forced by a spring, when the whole is revolving together. The stationary knife is a saw-edge.

286. Q. Is the form of the stationary knife with the saw-like edge now used by you and R. W. Murphy the form of the plain stationary knife used in the machine for which you received letters-patent?

A. Nothing like it.

287. Q. Describe the form of the knife which is patented.

A. I can describe it with a pencil and paper, but not otherwise. The edge is smooth, and is bent in a certain distance and then bent
66 at a right angle, carried forward at right angles a certain distance, then bent back the same distance as first bent, and bent again at right angles so as to carry forward the second end on the same line as the first end, the bending being such as to cut a bag so as to form into the shape of figure 3 in the drawing contained in the letters-patent No. 135145.

288. Q. The stationary knife now used by you with a serrated edge is a straight knife unbent, and rests upon its side, but the outline of the serrated edge of the knife is such as, when proper pressure is received from above, to cut the paper into the form shown on figure 3; is not that correct?

A. It is not correct.

289. Q. Wherein does the stationary knife now in use by you on your machine differ from the stationary knife used on your machine for which you have a patent?

A. The patent stationary knife cuts the part of a circle, and the saw-knife makes an angle in the paper.

290. Q. Show what kind of a cut the patent knife makes in the paper, and also what kind of a cut the saw-knife makes.

(Question withdrawn.)

291. Q. Look at "Plaintiffs' Exhibit A," and say whether the serrated edges of that partly-made bag were made by your bag-machine, now used by R. W. Murphy.

A. It was.

292. Q. In one of the serrated sides, marked "B," there is an indentation of one-half inch, is there not?

A. Yes; there is about that.

293. Q. In the other serrated side, marked "C," there is a portion of the serrated edge which projects about one-half inch, is there not?

A. Yes.

294. Q. When the bag is formed, the projecting edge C constitutes the bottom of the bag, does it not?

A. It does.

295. Q. And the indented edge B constitutes the mouth of the bag, does it not?

A. It does.

296. Q. What is the object of making the projection C on the bag?

(Objected to as new matter, not growing out of the cross-examination.)

67 A. In cutting the bag we cannot cut it any other way. That one cut of the knife cannot be severed in any other way; it will leave both sides as they come out.

297. Q. What is the object of making the serrated knife cut the paper

so as to leave a projection of paper in the centre of the edge cut which is to constitute the bottom of the bag?

(Objected to as not growing out of the cross-examination.)

A. So that it will fold and paste.

298. Q. Could you paste the bottom of the bag down so as to make it stay without that projecting edge?

(Objected to as not growing out of the cross-examination.)

A. No way that I know of now.

299. Q. The knife which you used on the machine which you have patented, cut the edge of the paper to be used as the bottom of the bag, left a projection in the centre of that edge the same as your present serrated knife does, does it not?

A. Very similar.

300. Q. Was there any dissimilarity in the form in which the paper was cut to make the bottom of the bag, when cut by the knife of your patented machine, from the form when cut by your present knife, except this, that when the paper was cut by your patented machine knife, the edge was smooth and even, while the edge when cut by your present serrated knife is jagged like the teeth of a saw?

A. There was; there is.

301. Q. What is that other difference?

A. The projection in the patent was formed in a circle. The form of the edge of the bag is a circle. The projection made by the serrated knife is an angle.

302. Q. Is the projection in figure 3 of your patent offered in evidence what you mean when you say the projection made by the knife in your patented machine was a circle?

A. Yes.

303. Q. Do you call the projection opposite to the indentation on figure 3 in the shape of a circle?

A. In my model and in the machines it is, but that was a mistake of the patent agent.

68 304. Q. The projection, then, which you have described in obtaining your letters-patent is not in the shape of a semicircle?

A. No.

305. Q. That projection shown in figure 3 of Exhibit B is the same in form as the projection C on "Plaintiffs' Exhibit A," except that the edge of the projection is serrated in Exhibit A, and is smooth and even in figure 3 of Exhibit B, is it not?

A. Yes; I don't see any difference there.

306. Q. You could not make a bag, M'r Murphy, could you, on your machine, without cutting the paper so as to make the indentation and projection shown on "Plaintiffs' Exhibit A"?

A. I could not.

307. Q. Do you claim as your invention the stationary knife and serrated edge which you say you now use of such form as will cut the edge of the paper to make a bag as the edges of C and B of "Plaintiffs' Exhibit A" are cut?

(Objected to as irrelevant and incompetent, as calling for the contents of a written instrument and the legal construction of the same.)

A. I claim it in combination with the revolving cutter.

308. Q. Do you claim the knife which I have described in the preceding question as your invention by itself?

(Objected to as irrelevant and incompetent, and as calling for the contents of a written instrument, and of the legal construction of the same.)

A. I do not. Only in combination with my revolving cutter.

309. Q. Is the revolving cutter which you and your son, R. W. Murphy, now use upon your bag-machine the same revolving cutter in form and mechanism as that used upon the machine for which you obtained letters-patent?

A. It is not.

310. Q. In what respect is your present revolving cutter different from the revolving cutter used on your machine for which you obtained letters-patent?

(Objected to upon the ground that this identical matter was fully inquired into in the direct examination.)

A. The centre knife on the machine which I use now makes a quarter circle, or about a quarter circle, while revolving around. That is the only difference.

69 311. Q. Did not the revolving cutter in your machine, for which you received letters-patent, cause the knife to describe a quarter circle?

(Objected to upon the ground that this identical matter was fully inquired into in the direct examination.)

A. It did not.

312. Q. What was the difference in action between the revolving cutter under your letters-patent and your present cutter?

(Objection same as above.)

A. The cutter knife in the patent is now taken off. The cutter now makes a quarter circle when revolving around.

313. Q. Is there no knife now on the revolving cutter?

A. There is a hoop-iron knife.

314. Q. Is that a flat or curved knife used on your present machine?

(Objection same as above.)

A. It is a flat hoop-iron, one and a half inches wide and one-eight' inch thick.

315. Q. Is the edge of the knife smooth or serrated?

(Objection same as above.)

A. Smooth.

316. Q. Is it a sharpened edge or blunt edge?

(Objection same as above.)

A. Blunt edge.

317. Q. Is the hoop-iron knife when fixed upon the revolving cutter perfectly straight, or has it any indentation or projection?

A. It is straight and smooth.

318. Q. Is the hoop-iron knife shorter or longer than the stationary knife?

(Objection same as above.)

A. About the same length.

319. Q. What is the use of this hoop-iron knife when used in combination with the stationary knife?

(Objection same as above.)

A. To break the paper off.

320. Q. How does it break the paper off?

(Objection same as above.)

70 A. By a blow. The paper, when the machine is in motion, runs over the stationary knife or serrated knife; the hoop-iron knife falls in describing a quarter circle from above, and strikes a blow upon the paper a short distance from the end of the teeth of the stationary knife, and tears the paper apart, leaving the edges of each part serrated according to the shape of the stationary knife; the rollers beyond the

stationary knife, and before the blow upon the paper is stricken from above by the hoop-iron knife, seize the paper, and, when the hoop-iron knife strikes the paper, assist in breaking off the paper into the form of the stationary knife.

321. Q. Why do you call the strip of hoop-iron on the revolving cutter, as you have described it, a knife?

A. Because it performs the same purpose as a knife.

322. Q. Does the knife cut the paper or strike the paper a blow?

A. It strikes it a blow.

324. Q. Do you claim the revolving cutter now in use upon your machine as your invention?

(Objected to as incompetent and irrelevant, and for the further reason that the same matter has been fully inquired into in the direct examination, and does not grow out of the cross-examination.)

A. What is meant by claim—that I have a patent for it?

325. Q. That is one of the meanings.

A. I do, but not as secured by patent, though.

326. Q. Why was it that you abandoned the upright knife with a smooth edge and a bent form for the serrated knife lying flat on its side, with such unequal edge as to cut the bag in the form shown by "Plaintiffs' Exhibit A"?

(Objected to as incompetent, irrelevant, and as not arising out of the cross-examination.)

A. My object in making that was to see if I could make the thing work. I could use either kind.

327. Q. Does your present knife work better than the knife used upon your patented machine?

(Objected to as incompetent, irrelevant, and not growing out of the cross-examination.)

71 A. I don't know any difference.

328. Q. While you were using the upright knife of your patented machine, were you not constantly making imperfect bags?

(Objection same as above.)

A. It was not caused by the knife of the cutter.

329. Q. What was it caused by?

(Objection same as above.)

A. By not having experience in tending the machine.

330. Q. You never had any difficulty as to making perfect bags by the upright knife used in your patented machine, did you?

(Objection same as above.)

A. Not after it was fitted so that the revolving knife would work in a circle at the bottom.

331. Q. Why did you abandon the upright knife, then?

(Objection same as above.)

A. Because my son thought it would be more saleable made with a serrated edge.

332. Q. Do you wish to be understood as testifying that the upright knife of your patented machine did the work of severing the paper as satisfactory as the serrated knife which you are now using?

(Objection same as above.)

A. When once in order, it did. It did not break the paper; it cut the paper.

333. Q. Were you able to keep the upright knife in order?

(Objection same as above.)

A. I was.

334. Q. When did you commence using the serrated knife?

(Objection same as above.)

A. A year and a half ago, in Cincinnati; made there and use it now. I didn't finish the machine in Cincinnati. I tried the knife and found I could use it.

335. Q. Have you used it continually since you have been in S't Louis?

A. I have used it since January 1, 1873.

336. Q. Did your son use it prior to the first of January?

(Objected to as not growing out of the cross-examination, and as having been fully enquired into in the direct examination.)

72 A. He did not.

337. Q. What cutter and knife did he use?

(Objection same as above.)

A. The cutter and knife that I patented.

338. Q. Do you mean to say that you ever patented any knife or any cutter for the purpose of severing paper into such a form as to enable it to be made into a bag by machinery?

(Objected as incompetent, irrelevent, asking for the contents or legal construction of a written instrument.)

A. I patented a revolving cutter in connection with a stationary knife.

339. Q. When?

A. Letters-patent 135145, marked "Defendants' Exhibit B," are my patent for the revolving cutter and stationary knife. I think it was in January, 1872.

340. Q. Did you ever obtain any other letters-patent than "Defendants' Exhibit B" for a paper-bag machine, or for an improvement in a paper-bag machine?

A. No.

341. Q. Do you not know that in your patent you make no claim for any part of a paper-bag machine which will cut the paper used in making a bag into such form as will enable the paper to be made into a bag by machinery?

(Objected to as incompetent, irrelevant, and as calling for the contents and construction of a written instrument.)

A. I think there is no claim of that kind there. I claim nothing but the machinery for cutting that shape. These claims have all been put in before. Goodall has the claim for making the bag into that shape.

342. Q. Have you ever obtained a patent for cutting paper into any shape, so that it may be formed into a bag by machinery?

(Objection same as above.)

A. Nothing but the present machine that I have patented.

343. Q. Do you claim that your patent, "Defendants' Exhibit B," grants letters-patent to you as inventor of any process at all for cutting paper into any form, preparatory to its being made into a bag by machinery?

73 (Objection same as above.)

A. I claim what I have a patent for. I do make such claim.

344. Q. Do you claim that your patent, "Defendants' Exhibit B," grants letters-patent to you as inventor of any process at all for cutting paper into any form, preparatory to its being made into a bag by machinery?

(Objection same as above.)

A. I do.

345. Q. Do you not know that the knife and revolving cutter described

in your letters-patent, and the knife and revolv' cutter which you are now using, have been patented and used for years?

(Objected to as incompetent, irrelevant, and calling for the contents and construction of a written instrument.)

A. I know that they have not been patented or used in that shape. Not patented when I patented mine.

346. Q. Look at your letters-patent, and say when they were issued.

A. January 21, 1873.

347. Q. You have stated, in your examination in this case, that you have made an examination of the Patent Office Reports and other papers relating to paper-bag machines already patented, in order to avoid infringements; do you not know that in using the present knife and cutter upon your machine, and the knife and cutter used upon your patented machine, that you have been using substantially the same knife and cutter patented and used for years in the Goodell machine and Amazine machine?

(Objected to as incompetent, irrelevant, and as not growing out of the cross-examination, and as calling for the construction and contents of written instruments, and also as indefinite in not describing the letters-patent referred to.)

A. No; nothing like them.

348. Q. You say now, in your cross-examination, that you do not use a tube in forming the bag; do you still adhere to the statement?

A. I do.

349. Q. The only thing, then, that you use in forming a bag
74 is the former of your machine described in your examination-in-chief?

(Objected to as not growing out of the cross-examination and as having been fully enquired into in the direct examination, wherein the answers of the witness were not such as the question assumes them to have been.)

A. I use the former in connection with wires or pieces of copper that turn the lap.

350. Q. Do the plaintiffs in this case by their machine use anything but a former and guides to turn over the sides of the bag?

(Objected to as incompetent, irrelevant, and as being new matter, and assuming that the plaintiffs in this case use a former and other devices for forming bags, of which there is no evidence.

A. I won't describe the machine.

351. Q. Why?

A. I can't tell the particular things there are about it. I saw it. The tube of paper is some six or eight feet long from the cutter to the roller where the paper is rolled.

352. Q. What is that tube of paper formed over, a flat piece of metal, the width of the bag to be made, about $\frac{1}{8}$ or $\frac{1}{4}$ inch thick?

(Objected to for the above reasons, and as calling for the contents of a written instrument.)

A. The first operation of forming is done by what are called creases; further I cannot describe.

353. Q. Do you mean to say that you do not know that the only means by which plaintiffs' machine forms the paper into a tube and pastes the side down preparatory to closing the bottom of the bag, is a long flat piece of iron suspended at one end of the width of the bag, and about $\frac{1}{8}$ or $\frac{1}{4}$ inch thick, commonly called a former?

(Objection same as above.)

A. I know that they use such a former made in shape so that they

can use draw-rolls in such a form as to draw the paper through the former.

354. Q. My question is, do you not know that the plaintiffs in
75 forming paper into a tube preparatory to pasting down the sides and the bottom, use only a long piece of iron suspended at one end, the width of the bag to be made, about ⅛ or ¼ inch thick, which piece of iron is commonly called a former?

(Objection same as above.)

A. I know they don't use a former in that shape.

355. Q. In what shape do they use a former?

(Objection the same as above.)

A. The former is cut in the shape so that they use draw-rolls to draw the tube.

356. Q. What is the former used by plaintiffs made of?

(Objection same as above.)

A. I can't tell.

357. Q. What is your best recollection as to what the former is made of?

(Objection same as above.)

A. Iron.

358. Q. How long is it, about?

(Objection same as above.)

A. It depends upon the length of the bag they want to make.

359. Q. How wide is it?

(Objection same as above.)

A. Wide as the bag they want to make.

360. Q. How thick is it?

(Objection same as above.)

A. Don't know.

361. Q. About how thick?

(Objection same as above.)

A. About ⅛ or ¼ inch thick.

362. Q. Is it not suspended at one end above the table of the machine, so as to permit the paper to pass under?

(Objection same as above.)

A. It is so as to make the tube under and over it.

363. Q. The tube of paper which is to constitute the bag is, upon plaintiffs' machine, formed over this piece of iron called the former, is it not?

(Objection same as above.)

A. It is.

76 364. Q. The paper tube which is to constitute the bag is formed into a tube on plaintiffs' machine only by this iron former, is it not?

(Objection same as above.)

A. Only by the former.

365. Q. In your cross-examination you have stated that the inside flap of the bag, when made on your machine, is pasted before the bag is cut; do you mean by that that the paste is applied to the edge of the bag before the bag is cut, or that the paste is applied to the edge or flap, and that the edge or flap to which the paste is so applied is pasted down on the other side of the bag before the bag is cut by your machine?

(Question withdrawn.)

366. Q. You have stated in your cross-examination that the inside flap of the bag made by your machine is pasted before it is cut into a bag.

A. If it states the inside flap, it is wrong.

367. Q. Is what you intended to say this, that the paste is applied to the outside flap before the paper is cut into a bag?

A. That's it.

368. Q. When is the flap to which the paste is applied pasted down on to the inside flap; before or after the bag is cut?

A. After the bag is cut.

369. Q. When the paper to make a bag is pasted down at the side over the former of your machine, it is in the shape of a tube open at both ends, is it not?

(Objected to, as this matter was fully inquired into in the direct examination, and does not grow out of the cross-examination.)

A. It isn't pasted down on the former.

370. Q. What is it pasted down upon?

A. It is pasted between two rollers as soon as it leaves the former.

371. Q. Is not your former inside the paper tube at the time the rollers are pressing the pasted edge or side of the bag down upon the unpasted edge or side of the bag?

A. The paper is not pasted down so as to be a tube until it gets off the former, but is kept up.

372. Q. What do you mean by kept up?

A. When the paper is passing along to be folded with the
77 pasted side up, we have to put wires to keep it from falling down until the whole thing is closed over far enough; if it is allowed to stick, it won't close over.

373. Q. You have stated that the rollers are the instrumentality in your machine by which the sides of the bag are pasted together. What I desire to know is this: while the rollers are pasting the sides together, is not the former of your machine inside of the paper which is to form the bag?

A. Yes, sir.

374. Q. That is to say, at the time the rollers are giving the necessary pressure upon the two sides of the bag, cause the paste to make them to adhere, the former of your machine is inside of the paper which is to form the bag?

A. It is.

375. Q. Now, when the paper pasted together at the sides passes from the former of your machine, it is open at both ends, is it not?

A. No; the front end of the bag is immediately turned up, so as to give the necessary lap to make the end, and is immediately forced between the dryer and press, and is pasted down.

376. Q. Now, before the paste-knife strikes the end of the bag, and before the end of the bag passes between the dryer and the felt roll, is not the paper then upon the former in the shape of a paper tube flattened out?

A. No; it is not pasted together.

377. Q. Is not the paper on the former after the two sides are pasted down by passing through the rollers before it is struck by the paste-knife and carried through the felt and the dryer, in the shape of a paper tube open at both ends?

(Objected to on the ground that the paper enclosing the former is pasted down, when there is no evidence to that effect, but all the testimony is to the contrary.)

A. It would be if it were pasted on the former, but it is not pasted on the former.

378. Q. At the time the rollers in your machine are pressing the pasted side against the unpasted side of the bag, so as to make them adhere,

is the former of your machine enclosed in the paper to form the bag and between the two rollers as the sides are being pasted together?

78 A. It is; the former is inside of the paper; the former is not between the rollers—about one or two inches from them, and when the paper passes through them, there is nothing between the paper.

379. Q. After the paper is pasted together by passing through the rollers, is it not, before it is struck with the paste-knife, in the shape of a paper tube flattened out?

A. It is the shape of a paper tube pasted for two inches and the balance left open.

380. Q. Is the balance in the course of being pasted?

A. Pasted as it moves along.

381. Q. You have stated, in your cross-examination, the device by which the paste is brought in contact with the flap or side of the bag is a metal belt; what kind of metal is that belt made of?

(Objected to as immaterial.)

A. Copper and brass, both very thin.

382. Q. It is in the shape of an endless chain, isn't it?

A. An endless belt.

383. Q. The lower attachment of the belt works upon a revolving wheel inside of a paste-pot or hopper, does it not?

(Objected to as having been fully inquired into in the direct examination.)

A. It does.

384. Q. The upper attachment of the belt is a revolving pulley, is it not?

(Objection same as above.)

A. It is a revolving driving-pulley.

385. Q. On your machine the paper is carried up over the roller B, is it not, on the diagram of your letters-patent marked "Exhibit B"?

(Objected to as calling for the contents and construction of a written instrument, which speaks for itself.)

A. It is.

386. Q. Does not the endless belt which runs through the paste in your machine apply the paste to the flap or edge of the paper to be used in making the bag, by being caused to press upon the paper while the paper is lapping over roller B^1, before mentioned?

79 (Objection same as above, and also as the question belongs to the examination-in-chief and does not grow out of the cross-examination.)

A. It does.

387. Q. Does not the machine of the plaintiffs apply the paste of the side flap of the paper which is to receive the paste by a grooved brass wheel running in a paste-vat, which wheel is brought in contact with a side flap of the paper by having the paper drawn over the wheel?

(Objected to, 1st, as leading; 2d, as incompetent and irrelevant; 3d, as assuming facts of which there is no evidence; 4th, as calling for the contents of a written instrument.)

A. The paste is put on by the wheel. I don't know what a flap would be in a paper tube.

388. Q. I have not questioned about a flap in a paper tube, nor is there such a thing at the stage of the process of which I am speaking that the flap of the tube. The question I desire you to answer is this: Is the paste applied by plaintiffs' machine to the side of the paper of the bag to be made by a grooved brass wheel working in the mode that I have described in the preceding question?

(Objection same as above, and particular objection as to that portion of the question included in the clause "nor is there such a thing.")

A. It is when the paste is being applied the tube is formed.

389. Q. At what distance in inches or feet from the place where the paste is applied by the wheel is it that the tube is being formed by turning over the sides of the paper?

(Objection same as above.)

A. That depends upon the size of the machine or the length of the bag you want to make.

390. Q. Well, say on an ordinary-sized machine?

A. I can't give the length in feet or inches.

391. Q. You have stated in your cross-examination that after the paper is severed by the cutting apparatus, the paper is carried forward by a leather belt with emery glued upon it; does not that leather belt work upon rollers at its respective ends?

A. It does.

80 392. Q. Does not that leather belt work underneath the former of your machine?

(Objected to as not growing out of the cross-examination and as having been fully inquired into in the direct examination.)

A. A part of the belt runs underneath the former, with a sheet of paper between the former and the belt.

393. Q. Do you not mean that the whole length of the belt passes under the former, but that the belt is longer than the former and passes under and over other things?

A. Yes; it does.

394. Q. Did not the office of that belt while running under the to press the paper upon the under side of the former—against the under side of the former—by the pressing thereby attained?

(Same objection as before.)

A. The former presses upon the belt.

395. Q. By its weight, the action of the belt causes the paper to go forward?

A. Yes.

396. Q. Have you ever obtained a patent for that belt?

A. I cannot tell how the patent is worded there. (Question objected to as calling for the contents and construction of a written instrument, and also as immaterial.) I have, in combination with the dryer.

397. Q. Where are your letters-patent for that?

A. If it isn't in there I haven't got it. "Defendants' Exhibit B" are my letters-patent for that belt, and no other.

398. Q. Have you a patent for the drying-wheel?

(Objection same as above.)

A. No patent for drying.

399. Q. On the machine now in use by you and your son, do you still use the endless band working upon rollers, having emery glued upon it, running under the former, for the purpose of carrying paper forward while in the process of manufacturing the lap?

A. I use two endless belts now instead of one.

400. Q. Have they emery glued upon them?

A. Emery glued upon one, and that is the one passing under the former.

81 401. Q. What is the other belt used for?

A. Folding the paper into the dryer and holding it there while it goes around.

402. Q. That is, you divide up the work done by a single belt between two belts?

A. Yes.

403. Q. You have stated in your cross-examination, have you not, that your former is fastened at one end and held at the other in such a way as to afford it a certain amount of vertical and lateral motion?

A. It is hung that way.

404. Q. What is the object of having it hung in such a way as to give it some vertical and some lateral motion at one end?

(Objected to as assuming as a fact that which is shown by the testimony to be otherwise.)

A. So that it can accommodate itself to the unevenness of the belt when it is in motion.

405. Q. Is not the former on plaintiffs' machine held at one end and loose at the other end, so as to be capable of vertical and lateral motion at that end?

(Objected to as leading, as not growing out of the cross-examination, and as assuming facts of which there is no evidence, and as immaterial and irrelevant.)

A. I think it is.

406. Q. When you make bags of different sizes on your machine, do you alter the size of your former as to width?

(Objected to as having been inquired into in the direct examination, and as not having grown out of any matter introduced in the cross-examination.)

A. We do.

407. Q. Do you claim the emery belt, in respect to the emery upon it, and the use of the belt while in carrying forward the paper, and while in the process of manufacturing bags, as your invention?

(Objected to as immaterial and as irrelevant.)

A. I claim I am the first one that used it.

408. Q. Do you claim that you are the inventor of it?

(Objection same as above.)

A. I do.

82 409. Q. Is it not the office of the pasting-knife on your machine to take upon the outer edge of the pasting-knife paste from a roller, supplied to the roller from a paste-hopper above the roller, and, after the knife has received the paste from the roller, then to fall and strike the paper between the felt and the drying-cylinder in such a manner as to turn up and apply paste upon the outer edge of the knife to turn up the edge of the end of the paper and apply the paste on the outer edge of the knife, to the end so turned up, so that the paper with the edge so turned up and pasted will be carried between the felt and the drying-cylinder, in such a manner as that when it leaves the paper-knife, the felt and the drying-cylinder will make the edge which has received the paste adhere to the opposite part of the bag and form its bottom?

A. Yes, it will; that is its office.

410. Q. You have stated in your cross-examination that the paste-knife moves in a quarter-circle, and it is so made as to fall between the felt and the drying-cylinder; by what machinery is that motion given to the paste-knife?

A. Crank motion.

411. Q. Does not plaintiffs' machine have a paste-knife which strikes a revolving roller running in a paste-vat, and takes from such roller on the outer edge of the knife paste, then falls upon the paper bag as it leaves the former, carries it between two rollers, turns up the edge or

bottom lap, applies the paste upon the outer edge of the knife, the bottom lap so turned up forces the paper in that position between the rollers, which by their motion carry the paper through, making the turned-up edge which receives the paste adhere to the opposite side of the paper, thereby forming a bag?

(Objected to as leading, immaterial, irrelevant, as new matter not growing out of cross-examination, and as assuming facts of which there is no evidence.)

A. I cannot give you any description of the pasting of the bottom of the bag of the Rice machine.

412. Q. Have you ever seen the paper-bag machine of M'r Cupples in operation, on Seventh and Walnut streets, in the city of S't Louis?

A. I have not.

83 (Defendants now enter a general objection to all testimony offered by this witness in relation to the construction, operation, or function of any part of plaintiffs' machine.)

413. Q. Why is it you cannot answer the last question but one propounded to you?

A. I have not seen the machine for four or five years, and I don't retain any recollection of the operation of the machinery.

414. Q. Now, to the best of your recollection, from having view' Rice's machine, and from having examined Patent-Office Reports concerning the same, is not the action of that machine by its pasting-knife, applying of paste, and turning up the edge, such as I have described in the preceding question?

(Objected to on the ground that the witness has already answered that he cannot recollect the construction of the Rice machine, and also on the ground that it calls for the contents of a written instrument, and not offering the same in evidence.)

A. I cannot describe the action of the knife which takes the paste.

Recross-examination:

415. Q. Please mark on "Plaintiffs' Exhibit A" the line in which the bottom folds are made, and also the two lines in which the side folds are made, and designate the same by appropriate letters.

A. I have done so, and the line marked "*a*" is the line in which the bottom fold is made, and the lines marked "*g*" and "q^1" are the lines in which the side fold is made.

416. Q. Does not the paper in the machine now used by you and R. W. Murphy, as well as in the patented machine formerly used by you, move along continuously from after leaving the roll without any stoppage or intermittent motion before, during, and after the blow is struck by the revolving knife?

A. It does.

417. Q. Is there any pressure whatever brought to bear by the pressing-rolls upon the bag while the former is interposed between that part of the bag between such rolls?

A. The former does not come within two inches of the rolls, and there is no such pressure.

(Signed) MERRICK MURPHY.

84 *Deposition of Horace P. Fasdick.*

I am in the employ of R. W. Murphy & Co., in the capacity of general clerk and bookkeeper, and have been about thirteen months. Between three and four, previous to being employed as general clerk and bookkeeper, I drove a wagon for R. W. Murphy & Co. I have had charge

of the books of that concern for the last thirteen months. I do not know what amount of capital M'r Murphy has invested in his business. I could make a very close estimate of it. It is between $5,000 and $6,000, to the best of my knowledge. The liabilities of the concern at this time are about $2,700. R. W. Murphy & Co. first commenced using the patented paper-bag machine, which they now use, about last August. They experimented with it for several months after that time. They first commenced making bags for sale on that machine, I think, about the middle of the month of November, 1872. They have not been making bags for sale on that machine steadily since that time. They ran probably one half the time since that, may be less. They are running that machine now, making paper bags for sale. The running of the machine has been suspended all of the last month, with the exception of the last few days. They last resumed the running of the machine in question about the middle of last week—Wednesday, I believe. I don't know how many bags of the different sizes they make each working-day. R. W. Murphy has charge of the running operations of the machine. I can't form any estimate as to what has been done since they last started up. I can't state the average per day, as they would work all one day and probably two hours of the next day. I cannot state the average they worked during a week or a month prior to the time they stopped last. I cannot state the aggregate number. I have an account of all bags made. They were all turned over to me from the factory. I suppose R. W. Murphy has kept an account of the work he has done since he resumed last. I don't know. I might add to' that the account is never rendered to me until the bags are turned over to me; that is, till the bags are transferred to me from the factory. This is done as often as the bags are needed to supply the demand. R. W. Murphy & Co. make bags with their machine from a quarter to a five, inclusive. I was engaged in selling bags for them on the wagon from February 27th until June 15th, 1872.

418. Q. What was the average amount of your sales?

(Objected to as incompetent and irrelevant.)

A. I am not prepared to say. A portion of the bags which I sold on the wagon came from Cincinnati, and I was told they were made by Nixon & Co. (Objection to that portion of the answer in which the witness narrates what he was told.) The other portion came from the house of Samuel Cupples. They have employed a portion of the time one and a portion of the time two persons to drive the wagons and sell bags since the machine has been in operation. H. P. Rade, Merrick Murphy, j'r, and Frank Rickert have been such persons; only one of them, Frank Rickert, is now in the employ of Murphy & Co. They have various prices for different sizes of bags which they manufacture by the machine now in use. I can give you the card-prices and discount. No. ½, bogus manilla; card-price, 75 cents. No. 1, bogus manilla; card-price, 85 cents. No. 2, card-price, $1. No. 3, card-price, $1.15. No. 4, card-price, $1.35. No. 5, card-price, $1.55. The discount to consumers, ten per cent.; in some cases, 15 per cent. Where parties use large quantities as sold from the wagon, the wholesale rate is twenty-five per cent. off the card-price. The card-prices for the bogus manilla are the same as I have stated. Murphy & Co. sold bags to Smith & Yudell, Schmieding & D'Oench, H. B. Graham & Bro. They did not sell any to Libby & Williams. The largest discount to one of those houses, H. B. Graham & Bro., was 35 per cent. They increased the discount as a concession, so as to get the lot off their hands. I think this was in the latter part of the month of May, 1873. The net amount of that sale

was a little over $500. I don't remember the exact amount. I couldn't say whether the sale was before or after this suit was commenced. I heard of the suit at the time of the commencement, but can't say whether it was before or after this sale. The largest discount ever made to other houses by Murphy & Co. was 25 per cent.

419. Q. Of whom and at what places did Murphy & Co. purchase the paper with which they manufactured bags?

(Objected to as incompetent and irrelevant, and improper at this stage of the proceedings.)

86 A. J. McCready, of Philadelphia; Cleveland Paper Co., of Cleveland, Ohio; G. W. Irwin & Co., Middleton, Ohio.

420. Q. At what price did they buy?

(Objection same as above.)

A. 13 cents, I believe, for one lot of manilla paper; 11½ c'ts for a lot of manilla paper; 9 cents for a lot of bogus manilla, and 8¼ cents for a lot of bogus manilla. That is the rate per pound, and it may be incorrect. This is the best I can give without consulting the books.

421. Q. Have not Murphy & Co. sold bags since they commenced operating last week?

A. They have. I can't say when they were made, except that they were made previous to the time the machine last stopped, six or eight weeks ago, except six thousand that were made during the last few days. I am not prepared to state the aggregate amount of sales since Murphy & Co. last commenced running. There were 35,000 bags sold by Murphy & Co. since they commenced running last. A part was made by them and a part by Samuel Cupples. I don't know the amount of the sales. It was probably $80. About one-third of the number of bags just stated was made by Murphy & Co. I have kept a separate account of the bags made and sold since the commencement of operations the last time.

422. Q. How many of these bags have they made and sold since they started the machine the last time?

(Objected to as incompetent and irrelevant and improper.)

A. 6,000.

423. Q. Do Murphy & Co. keep an account of the paper bags they manufacture at this time with their machine?

A. I suppose M'r Murphy keeps an account at the factory. I take no account of them until they are transferred to me.

424. Q. How far is the factory from the store?

A. Six or seven blocks.

425. Q. Did you see, or have you seen at any time, the account kept by M'r Murphy of the bags manufactured by him since the last time?

A. I have not.

Cross-examination waived.

(Signed) H. P. FOSDICK.

87 In the circuit court of the United States in and for the eastern district of Missouri. In equity.

THE UNION PAPER-BAG MACHINE COMPANY et al.
vs.
MERRICK MURPHY AND R. W. MURPHY.

Testimony of John Boyd Eliot, a witness produced, sworn, and examined on behalf of the plaintiffs, before James McCann, j'r, a notary,

public, at the office of George Harding, esq., S. W. corner of Chestnut street and Ninth street, in the city of Philadelphia, Penn'a, on the 13th day of July, A. D. 1874, pursuant to the annexed agreement of counsel.

In the circuit court of the United States in and for the eastern district of Missouri. In equity.

THE UNION PAPER-BAG MACHINE COMPANY et al.
vs.
MERRICK MURPHY AND R. W. MURPHY.

It is hereby agreed and stipulated that James McCann, jr, of Philadelphia, Penn'a, may act as special examiner in this cause, and that the testimony taken before him may be used on the hearing of this cause with the same force and effect as though taken before an examiner of this court under the 67th rule of this court as amended, and as though he had been appointed special examiner therefor.

(Signed) GEORGE HARDING.
SAMUEL S. BOYD,
Defendants' Solicitor.

88 Circuit court of the United States in and for the eastern district of Missouri. In equity.

THE UNION PAPER-BAG MACHINE COMPANY et al.
vs.
MERRICK MURPHY AND R. W. MURPHY.

FIRST MEETING, *July* 13, 1874.

Present, George Harding, esq., for complainants, and S. S. Boyd, esq., for respondents.

George Harding, esq., offers in evidence certified copy of letters-patent to assignees of B. F. Rice, re-issue No. 920, with certificate of extension thereto annexed, marked "Plaintiffs' Exhibit No. 1;" also

Certified copy of assignment of B. F. Rice to Smith and Morgan, marked "Plaintiffs' Exhibit No. 2;" also

Certified copy of assignment of B. R. Smith to Whitney and Priest, marked "Plaintiffs' Exhibit No. 3;" also

Certified copy of assignment of Roxanna Rice to the Union Paper-Bag Machine Company, marked "Plaintiffs' Exhibit No. 4;" also

Certified copy of license of Union Paper-Bag Machine Company, marked "Plaintiffs' Exhibit No. 5;" also

Certified copy of letters of administration of Roxanna Rice, marked "Plaintiffs' Exhibit No. 6;" also

Certified copy of letters-patent granted to William Goodale July 12th, 1859, No. 24784, marked "Plaintiffs' Exhibit No. 7;" also

Certified copy of assignment of William Goodale to the Union Paper-Bag Machine Company, marked "Plaintiffs' Exhibit No. 8;" also

Certified copy of patent granted M. Murphy January 21st, 1873, No. 135145, marked "Plaintiffs' Exhibit No. 9;" also

Letters-patent granted to M. Murphy January 27th, 1874, No. 146774, marked "Plaintiffs' Exhibit No. 10;" also

Certified copy letters-patent granted to R. W. Murphy January 27th, 1874, No. 146773, marked "Plaintiffs' Exhibit No. 11."

89 M'r Boyd here asks leave of the complainants to amend his answers in both of the above causes by setting up therein the above patent granted to R. W. Murphy.

M'r Harding consents to the above.

Complainants offer in evidence a correct sample of a bag made by the defendants, made prior to the 31st day of October, 1873, marked "Exhibit No. 12;" also

Correct sample of bag made and sold by defendants since the 10th day of November, 1873, marked "Exhibit No. 13;" also

An unpasted sample of the same marked "Exhibit No. 14."

JOHN BOYD ELIOT, a witness on behalf of the complainants, being duly sworn, deposes and says:

Quest. 1. What is your name, age, residence, and occupation?

Ans. 1. John Boyd Eliot. I am forty-seven years of age. I reside in the city of New York, and am by profession a mechanical engineer and solicitor of patents, and for the last eighteen years have been much engaged in testifying as an expert in patent causes before the United States courts.

Q. 2. What have been your opportunities and what has been your experience as an expert in patent causes, and what knowledge, if any, have you had of machinery for making paper bags and the patents connected therewith?

A. 2. I am practically familiar with the mechanic arts as a machinist; have worked regularly in the shop both in wood and metal; have planned and superintended the construction of a great variety of machinery; have solicited more than two thousand (2,000) patents in almost all departments of the arts, and for some years was the editor of the Scientific Artisan, during which time and since I had frequent occasion to examine and report upon the construction of a great variety of machinery, and to examine patents therefor, and have often testified as an expert in patent causes in which machines for the manufacture of paper into various articles, such as paper collars, envelopes, paper bags,

90 and so forth, were involved. I have often seen machines for the manufacture of bags in operation.

Q. 3. Have you examined and do you understand letters-patent granted B. F. Rice, "Plaintiffs' Exhibit No. 1;" also letters-patent granted to William Goodale, July 12th, 1859, "Plaintiffs' Exhibit No. 7?"

A. 3. I have examined both of said patents, and believe I do understand the invention therein described and claimed.

Q. 4. Have you also examined letters-patent granted Merrick Murphy January 21st, 1873, No. 135145, Exhibit No. 9; also letters-patent granted Merrick Murphy January 27th, 1874, No. 146774, Exhibit No. 10; also letters-patent granted R. W. Murphy January 27th, 1874, No. 146773, "Plaintiffs' Exhibit No. 11;" and have you also examined Exhibits (bags) Nos. 12, 13, and 14, and do you understand the inventions therein set forth and shown in the several exhibits?

A. I have examined the said several exhibits referred to in the question, and believe I do understand the inventions represented in them.

5 Q. Does or does not the manufacture of paper bags by defendants like Exhibits Nos. 12, 13, and 14 upon the machines described in plaintiffs' Exhibits 9, 10, and 11, employ and contain the invention described in letters-patent granted the assignees of B. F. Rice, "Plaintiffs' Exhibit No. 1," and also letters-patent granted William Goodale, "Plaint-

iffs' Exhibit No. 7?" And give your reasons for any opinion you may express.

A. Said exhibits do, in my opinion, employ and contain in their manufacture some of the inventions described and claimed in the patents to Rice and Goodale, marked respectively "Plaintiffs' Exhibit No. 1" and "No. 7;" specifically I refer to "Complainants' Exhibit No. 12," which represents a blank for a paper bag, and a paper bag complete or pasted together, both of which are formed so as to have a lap at the bottom of the bag and a lip at the top, substantially as set forth in the Rice patent, "Complainants' Exhibit No. 1," and referred to in the 4th claim thereof, and said blank and bag are both formed or cut
91 so that there need not be any waste of material, and both are evidently formed, in my opinion, by a cutter which is so shaped as to cut the bag, or the blank from which the bag is made, from the roll of paper in the required form proper to be folded into a bag without further cutting out, substantially as set forth in the Goodale patent, "Complainants' Exhibit No. 7," and referred to in the first claim thereof. I also find in "Complainants' Exhibit No. 10," one of the patents granted to Merrick Murphy, a representation of a cutter for forming paper bags, so shaped that in the operation of separating the blanks from the roll of paper in the formation of bags, it will perform the same function of the cutter referred to in the first claim of the Goodale patent, and in substantially the same manner; that is, the serrated edge of said cutter is so shaped as to form a blank for the bags, so that the seam may be made in the middle of the bag and the bottom will be provided with a lap, so that both parts may be pasted firmly together on one side of the bag, and the top be provided with a lip for the convenience of opening the bag when it is to be used. An outline of said cutter is represented in the said Murphy patent, Exhibit No. 10, at figure No. 3 of the drawings, and marked by the letter H, and is also referred to in the specification of said patent. I also find in "Complainants' Exhibit No. 9," another one of the patents granted to Murphy, a cutter represented and described for blanks for paper bags, substantially like those described and claimed in the said Rice and Goodale patents, and referred to in the two (2) claims to which I have already made reference. An outline for a blank for a paper bag as shown at X, figure 3, sheet 1, "Complainants' Exhibit No. 9," and is substantially the same as shown at figure 16, sheet 2 of the drawing of the patent granted to Rice, and marked "Complainants' Exhibit No. 1."

I also find in "Complainants' Exhibit Nos. 13 and 14," blanks for paper bags formed in substantially the same manner as described and claimed in the said Rice and Goodale patents, and referred to in the 4th claim of the Rice and the 1st claim of the Goodale patents, but not, in my opinion, extended to quite the same degree as in the Exhibits
92 8, 9, 10, and 12, and for the following reasons: The lap that is formed at the bottom and the lip at the top of the bag in Exhibits Nos. 13 and 14 are produced by forming the cutter with serrations or teeth of different dimensions or of different degrees of depth; their outer points all coincide with the same straight line across the sheet from which the blanks are to be cut, as represented in figure 1, marked "G, Complainants' Exhibit No. 11." With such a construction of knife the operation of cutting begins in a straight line across the sheet of paper from which the blank is to be severed or cut, and in this respect the blank is not formed like the blank represented and claimed in the Rice patent, nor is the knife the same or its action the same as the knife claimed in the Goodale patent, but as soon as the cutting opera-

tion has progressed to the depth of the small teeth in the cutter shown at G, figure 1, "Complainants' Exhibit 11," then the cutting operation begins, which forms a blank for a bag substantially the same as that claimed in the Rice patent, to which I have already referred, and which is marked "Complainants' Exhibit No. 1," and the cutter then becomes substantially such an instrument as the one claimed in the Goodale patent, and referred to in the first claim thereof, for the reason that the rest of the cutting is continued by a series of cutting edges which form a blank for paper bags that have a lap at the bottom and a lip at the top for opening the bag. In other words, the cutting that is commenced in a straight line ceases to preserve that straight line as soon as ever the small teeth cease to act upon the paper, and then the coarser teeth or serrations of the cutting-edge continues the cutting operation down to their full extent, and to this degree, in my opinion, constitute a cutter substantially like the one described and claimed in the Goodale patent, and to this degree bags so cut are substantially like those shown and claimed in the Rice patent, to which I have already referred.

I do not regard the lap at the bottom in Exhibits Nos. 13 and 14 as good a method of construction of paper bags as when made according to the invention set forth in the Rice patent, for the reason that only a portion of the under lap is cut away, and therefore the outer portion of the lap, in place of being pasted upon the side of the bag upon
93 which it is folded, is partially pasted upon the inner lap or the points of the coarser serrations that may happen to fall between them.

Cross-examination of John Boyd Eliot by S. S. Boyd, esq.:

X 6. Q. Is the edge of the bag cut by the Rice machine smooth or serrated?

A. It is smooth, I believe.

X 7. Q. Is the edge of the blank cut by the Goodale machine smooth or serrated?

A. The blank is represented as smooth in the drawing; the cutter is represented as serrated.

X 8. Q. From your knowledge as an expert, would you say that the drawing of the Goodale bag correctly represents the edge of the blank?

A. I think it does, substantially so.

X 9. Q. Suppose the Goodale cutting-knife were placed in the Merrick Murphy machine, and subjected to the operation of the revolving striker, what would be the character of the edge of the blank cut by it; would it be straight or would it have a projection?

A. That would depend whether the said knife was fastened in the said Murphy machine with its edge vertical to the paper, as the cutters are placed in the Murphy machine. If the Goodale cutter were placed in the Murphy machine on its side, I think the edge of the blank would be substantially straight, but if placed vertically, as it is in the Murphy machine, then the blanks would be formed substantially as shown in the Goodale patent.

X 10. Q. If the Merrick Murphy knife were placed in the Goodale machine in the same manner as the Goodale knife, would the edge of the blank cut by it be straight or have a projection?

A. It would be substantially straight.

X 11. Q. Would that be the case were the Rufus W. Murphy knife subjected to the same conditions and placed in the same position?

A. It would.

94 X 12. Q. Suppose the Merrick Murphy and the R. W. Murphy knives were placed in the Rice machine in the same position as the

Rice knife, what would be the character of the edge of the bag cut by them respectively?

A. If their edges were so placed as to allow them to travel across the end of the "former," or supporting bar, on which the paper is folded, then the cutting action would be substantially the same as that performed by the Rice knife, and the blanks would be substantially the same as represented in the Rice drawing.

X 13. Q. That is, the edge of the bag would be smooth?

A. Substantially so; but, owing to the inclination of the knife with the former, or the edge not striking the paper at a right angle to its surface, there would probably be some slight roughness formed by the different serrations of the cutting edges.

X 14. Q. Do not both the Rice and the Goodale patents describe and show a bag whose bottom is formed wholly from the projection of the bag?

A. I believe they do, substantially.

X 15. Q. Is it possible to form the bottom of the R. W. Murphy bag without turning up both sides of the end of the blank?

A. It is not.

(Signed) JOHN BOYD ELIOT.

Sworn and subscribed before me this 13th of July, 1874.

(Signed) J. McCANN, J'R,
Notary Public.

Complainants here rest their case.

93, 96 United States circuit court, eastern district of Missouri. Equity.

UNION PAPER-BAG MACHINE COMPANY ET AL., compla'nts,
vs.
MERRICK MURPHY ET AL., RESPONDENTS.

It is hereby stipulated by the parties to the suit above named that the respondents may offer and read in evidence, with same force and effect and subject to the same legal objections as if the same had been regularly taken as testimony in said cause, the testimony of Horatio G. Armstrong, on pages (new) 71–73 and 401–409 of the printed record in the suits of the Union Paper-Bag Machine Company et al. vs. Thomas R. Nixon et al., in the United States circuit court, southern district of Ohio, the said suits being numbered 1481, 1483, 1526, and 1527; also, the testimony of E. W. Goodale, found at pages (new) 257–284 of said record; and also the testimony of William Goodale, found in said record and at pages (new) 307–317; and may in like manner offer and use the several exhibits attached to said testimony, or copies thereof, duly certified by the clerk of the United States circuit court for said southern district of Ohio.

It is further stipulated that the complainants may so offer and read any testimony or exhibits found in said record or filed in said causes of which they may give notice to the respondents by attaching a memorandum thereof thereto.

GEORGE HARDING.
Solicitor for Plaintiffs.
SAMUEL S. BOYD,
Respondents' Solicitor.

In accordance with the above, complainants give notice that they will offer and read in evidence the testimony of Jno. A. Smith, on pages (new) 420 to 430; also, the testimony of S. Houghton, (new,) 490 to 501; also, G. W. Palmer, (new,) 508 to 511, and C. H. Morgan, (new,) 512 to 522.

GEORGE HARDING,
Solicitor for Plaintiffs.
SAMUEL S. BOYD,
Respondents' Solicitor.

97 Circuit court of the United States in and for the southern district of Missouri. In equity.

THE UNION PAPER-BAG MACHINE COMPANY and others *vs.* MERRICK MURPHY AND OTHERS. } Suit No. 124.

Depositions taken in behalf of defendants in the above cause, pursuant to notice, before me, Daniel T. Potter, special examiner, duly appointed by said court for that purpose.

A true copy from the original.

DANIEL T. POTTER.

FRIDAY, *August 14th*—9 *o'clock a. m.*

Present, John M. Krum, esq., for complainants; Samuel S. Boyd, esq., for defendants.

Defendants offer in evidence a certified copy of letters-patent granted Merrick Murphy, January 27th, 1874, No. 146774, for improvement in paper-bag machines, and marked "Defendants' Exhibit C."

Defendants also offer in evidence a certified copy of letters-patent granted to R. W. Murphy, January 27th, 1874, No. 146773, for improvements in paper bags and machines for cutting the same, and marked "Exhibit D."

Defendants also offer in evidence a certified copy of letters-patent granted to Francis Wolle, October 26th, 1852, No. 9355, for improvement in machine for making bags of paper, marked "Defendants' Exhibit E."

98 Defendants also offer in evidence a certified copy of letters-patent granted to James Cox, February 13th, 1854, No. 347, for improvements in knives for cutting paper, and marked "Defendants' Exhibit F."

Defendants also offer in evidence a certified copy of letters-patent granted to John W. Smith and S. E. Pettee, May 1st, 1855, No. 12786, for machine for making paper bags and envelopes, and marked "Defendants' Exhibit G."

Defendants also offer in evidence a certified copy of letters-patent granted to Francis Wolle, May 29th, 1855, No. 12982, for machine for making paper bags, marked "Defendants' Exhibit H."

Defendants also offer in evidence a certified copy of letters-patent granted E. W. Goodale, May 29th, 1855, No. 12945, for improved machine for making paper bags, marked "Defendants' Exhibit J."

Defendants also offer in evidence a certified copy of letters-patent granted to William Brown, August 25th, 1855, No. 1926, for improvement in the manufacture of paper bags, marked "Defendants' Exhibit K."

Defendants also offer in evidence a certified copy of letters-patent

granted to E. W. Goodale, October 9, 1855, No. 13647, for machine for making envelopes, etc., marked "Defendants' Exhibit L."

Defendants also offer in evidence a certified copy of caveat filed by Benjamin F. Rice, June 13th, 1856, for machine for making paper bags, marked "Defendants' Exhibit M."

Defendants also offer in evidence a certified copy of letters-patent granted to Benjamin R. Smith and Charles H. Morgan, assignees of Benjamin F. Rice, April 28, 1857, No. 17184, for improvement in machines in making paper bags, marked "Defendants' Exhibit N."

Defendants also offer in evidence a certified copy of letters-patent granted to Henry R. David, October 5th, 1858, for improvement in knives to cut paper bags, etc., and numbered 21657, marked "Defendants' Exhibit O."

Direct examination by Sam'l S. Boyd, esq.:

CHARLES D. MOODY, produced and sworn as a witness on the part of the defendants, deposes and says:

99 I reside in the city of S't Louis, Missouri. My age is thirty-seven years, and my occupation is solicitor of patents. I have been engaged in the business of soliciting patents for six or seven years past. I have been engaged during that time as solicitor of patents; prior to that time I was engaged in manufacturing and mechanical pursuits, and originally was a civil engineer.

1. Q. Please state what acquaintance you have had, if any, with paper-bag machines, and what knowledge, if any, you have of the letters-patent that have been granted for such machines.

A. I have examined paper-bag machines. I have also examined various letters-patent relating to paper-bag machines. I am also called upon, and have been, to prepare applications for patents relating to paper-bag machinery, and also to investigate the principles and examine the devices involved and employed in paper-bag machines.

2. Q. Please state whether you have at any time examined, and, if so, when, the paper-bag machines operated by the defendants, and either of them, and, if you have examined such, state how the same correspond with the model now shown you, marked "Defendants' Exhibit M, Murphy Machine."

A. I have examined such machines several times; during the fall of 1873, during the spring of 1874, and recently within a week. At the time of the first examination referred to, said machines and the model now shown corresponded. At the time of the second examination referred to, they corresponded with the exception of the fixed blade employed in the cutting-device. At the time of the last examination referred to, they corresponded with the exception of such fixed blade and a slight change in connection with the pasting apparatus at the front end of the machine, the paste being applied to the paper by means of a disk instead of the paste-belt shown in the model. By the front end of the machine, I mean that end to which the paper is originally delivered.

3. Q. Please state if you have examined and understand the construction shown and described in letters-patent "Defendants' Exhibit B."

100 A. I have examined such construction and believe that I understand it.

4. Q. Please state how the machines operated by the defendants, examined by you as above stated, correspond with or differ from the construction shown and described in said Exhibit B.

A. Said machines correspond with the construction shown in Exhibit

B, excepting that the cutting-devices differ. The carrying-belt employed by defendants is divided into two parts instead of being in one, as shown in Exhibit B, and the change referred to in connection with the pasting-disk.

5. Q. Please state if you have examined and understand the construction shown and described in letters patent "Defendants' Exhibit C."

A. I have examined such construction, and understand it.

6. Q. Please state how such construction corresponds with or differs from that of the machines operated by defendants.

A. At the time of the first visit referred to, they corresponded. At the time of the last two visits referred to, they corresponded saving that the fixed knife employed in the cutting-device was changed.

7. Q. Please state if you have examined the letters-patent "Defendants' Exhibit D," and whether you understand the construction therein shown and described.

A. I have examined said exhibit, and understand the construction shown therein.

8. Q. Please state how such construction corresponds with or differs from that used by the defendants in their said machines.

A. It corresponds exactly.

9. Q. Please look at the exhibit now shown you, marked "M. Murphy, Knife," and state how the same corresponds with the fixed blade used in the machines of the defendants.

A. It corresponds with that seen at the time of the first visit referred to, but not with that seen subsequently.

10. Q. Please look at exhibit now handed to you, marked "De-
101 fendants' Exhibit R. W. Murphy, Knife," and state how the same corresponds with or differs from the construction shown and described in letters-patent Exhibit D, and with the construction now used in the defendants' machines.

A. It corresponds with the construction described in Exhibit D and with the construction employed by defendants after my first visit.

11. Q. Please state if you have examined and understand the construction shown and described in re-issued letters-patent No. 920, granted the assignees of Benj. F. Rice.

A. I have examined such construction, and believe that I understand it.

12. Q. Please look at the first claim of said patent, and state, in your opinion, whether or no the devices or machines used by the defendants at the time of either of your said examinations corresponded with or differed from the machines described in said claim.

A. At no time did the construction of defendants correspond with that referred to in said claim.

13. Q. Please look at the second claim of said re-issued patent, and state your opinion as to said machines of defendants corresponding with or differing from the devices set forth in said claim.

A. Said construction of defendants, in my opinion, does not correspond with the device or devices referred to in said claim number two.

14. Q. Please state whether in said machines of defendants the paper had a motion such as is described in the third claim of said re-issued patent.

A. It did not.

15. Q. Please state how the mode of cutting the paper in the defendants' machines corresponded with or differed from the mode described in the fourth claim of said re-issued patent.

A. As described in said re-issued letters-patent, a continuous sheet of

paper is drawn around a supporting-bar and into a tubular form by means of suitable rollers and guides. While on this bar, the paper is pasted longitudinally, forming a tube. This tube is drawn further on beyond the end of the supporting-bar far enough to enable a bag-length of paper to be cut off. The supporting-bar referred to is a rigid
102 bar extending from and supported by the standards at the forward end of the machine. It is in cross-section of the shape shown in Figures 6 and 7 in said re-issued letters-patent, and at its further end it is beveled, as shown in Figures 1 and 2, the under edge of the bar being shorter than the upper. Immediately under its lower edge, and distant from it only so that one side of the tube of paper can pass between it, is a stationary blade, k^3. There is a severing-blade supported by radial arms, which operates in connection with the paper tube and supporting-bar and stationary blade. This severing-blade has a reciprocating motion in the arc of a circle, passing down by the beveled end of the supporting-bar, severing the tube referred to obliquely, the upper edge of the supporting-bar furnishing a supporting-surface to one side of the tube, and the stationary blade referred to furnishing a supporting-surface to the other side of the tube.

In Murphy's machine the paper is drawn from the roll over a flat supporting surface and over a fixed serrated blade, and, while in a flat shape, is cut by the action of the striker from above upon it, thus forming a blank from which the tube is made. This blank is afterwards carried into a former. The action of the striker in defendants' machines is unlike the action of the severing-blade of Rice. The paper is in a different form while being cut. The supporting-surfaces, respectively, of the two constructions differ substantially, and the cutting-devices, as a whole, do not substantially correspond. I may add that the depth of the supporting-bar of Rice at the point of the severance of the tube is an essential feature. It must have depth sufficient to enable the projection required by Rice to be formed. There is nothing corresponding to this in Murphy's construction.

16. Q. Please state what is the character of the edge of the bag cut upon the Rice machine, whether serrated or smooth.

A. Smooth.

17. Q. Please state if you have examined and understand the construction shown and described in letters-patent No. 24734, granted William Goodale, for improvement in machinery for making paper bags.

103 A. I have examined said construction and think that I understand it.

18. Q. Please look at the exhibit now shown you, marked "Defendants' Exhibit W'm Goodale, Knife," and state how the same corresponds with or differs from the knife described and shown in said William Goodale's patent.

A. It corresponds exactly.

19. Q. Describe the shape of the bag and the manner of folding the same, described and shown in said William Goodale's patent, and, if you have any pattern of such bag, please produce it.

A. The blank is of shape shown in Figure 4, provided with a projection at one end at its center, and a corresponding depression at the other end. It is folded longitudinally on the lines marked "12 12" in the drawing, which folds, when pasted, form the blank into a tube. The laps designated "10 10" in the drawing are then folded over and upon the central portion, forming the bottom of the bag. The projection "11," at the opposite end of the bag, can be used to close its mouth if

desired. The model here shown, and marked "Defendants' Exhibit W'm Goodale, Bag," is a correct representation of the blank shown in the William Goodale patent, the dotted lines thereon indicating the lines of the folds of the blank, and the numbers marked thereon correspond with the numbers shown in the drawing.

20. Q. What is the character of the edge of the blank cut by the William Goodale knife?

A. Smooth.

21. Q. Please state how, in your opinion, the cutting-device used by the defendants when they employed the M. Murphy knife corresponded with or differed from the cutting-device shown and described in said William Goodale's patent.

A. The cutting-device shown in the William Goodale patent consists substantially of a knife of the form shown in said "Defendants' Exhibit William Goodale, Knife," having a reciprocating movement vertically, and a supporting-surface consisting substantially of a flat table provided with a slot of shape conforming to that of the knife, and in width sufficient only to enable the knife to pass into it. The paper is drawn
104 over this supporting-surface, and is held until the knife has descended through the paper into the slot, and has been withdrawn. The knife used by the defendants is arranged horizontally, forming the supporting-surface. This knife is flat. The knife of defendants and the cutting-device shown in the William Goodale patent do not substantially correspond, in my opinion.

22. Q. Please state what is the character or nature of the motion of the paper when cut on the William Goodale machine.

A. Intermittent.

23. Q. Please state whether or no it would be possible to cut paper in the William Goodale machine if the motion of such paper were continuous.

A. No.

24. Q. Please state what is the nature of the motion of the paper while being cut in the defendants' machine.

A. Continuous.

25. Q. Please state of what importance, if any, are the serrations in the R. W. Murphy knife, so far as relates to the practicability of pasting and folding by machinery the lap to form the bottom of the bag.

A. They are very important. Owing to their peculiar character—namely, those at either side of the blank being coarser than those at the center of the blank—provision is made for the paste to come upon the under fold of the bag, and enable it to be pasted to the body of the bag when the fold is turned upon it.

26. Q. Please state whether, in the blank cut by the R. W. Murphy knife, you do or do not find any projection such as is described in the Rice and William Goodale patents above referred to.

A. I do not.

27. Q. Please state whether, in your opinion, it would be possible for the Rice or William Goodale cutting-devices to produce a blank like that cut by the R. W. Murphy knife, supposing the R. W. Murphy knife were substituted in said machines respectively for the vibrating knives in said machines.

A. In my opinion it would not.

105 By mutual consent of the parties, I here adjourn the further taking of evidence till 3 o'clock p. m. of this day, August 14th, 1874.

DANIEL T. POTTER,
Sp. Exa iner.

Pursuant to adjournment, as above stated, at 3 o'clock p. m., August 14th, 1874, I continued the further taking of evidence.

DANIEL T. POTTER,
Sp. Examiner.

Cha's D. Moody, in continuation of his examination, deposes and says as follows:

28. Q. Please look at "Defendants' Exhibit E," now handed you, being letters-patent granted to Francis Wolle, October 26th, 1852, and state if you understand the mode of cutting the blank and folding the same into a bag.

A. I do.

29. Q. Please describe how the same is cut, and annex to your answer a sample of such blank, marking upon the same the lines on which the same is folded in order to form it into a bag.

A. The paper is cut from a continuous roll into the form of the blank now shown and marked "Defendants' Exhibit Wolle, Bag." Part of the blank is then folded over upon the other portion thereof, as indicated by the dotted lines marked thereon. The laps at the end and side are then folded over upon the central portion, completing the bag.

30. Q Please look at "Defendants' Exhibit F," being letters-patent granted James Cox, February 13th, 1854, and state if you understand the construction and operation of the devices therein described and shown.

A. I do.

31. Q. Please describe or show by a model, if you have such, the shape of the blank cut by the knife described in said patent.

A. The blank which I hold in my hand, marked "Defendants' Exhibit Cox, Bag," is the form of blank cut by the knife described in said
106 letters-patent, that is, supposing the blank to be cut from a continuous roll of paper, which operation is within the purview of the patent. If the blank were cut from a single sheet only, the side which now has a depression would appear straight.

32. Q. Comparing, now, the knife described in the Cox patent, as explained by you, with the fourth claim of the Rice re-issued patent, state how in your opinion it corresponds with or differs from the device therein described as "cutting the paper without waste of material into such a form as shall have suitable projections for the formation of the bottom lap or seam of the bag, and for the convenient opening of the bag."

A. As far as the result is concerned, it corresponds exactly. So far as the means are concerned, it has no resemblance whatever.

33. Q. Please state whether or not the Cox knife cuts the paper "to the required form to fold into a bag without further cutting out."

A. It does.

34. Q. Please look at "Defendants' Exhibit G," being the patent granted to Smith and Pettee, and state if you understand the mode of forming bags upon the same.

A. I do.

35. Q. Please describe and show by a model, if you have such, the shape of and the mode of folding the bag therein described.

A. The model which I hold in my hand, marked "Defendants' Exhibit Smith and Pettee, Bag," represents the form of blank cut by the cutting-device shown in said letters-patent. The dotted lines marked thereon indicate the lines of the folds. The paper is previously cut to the desired shape, then passes under a former marked "A," whose pat-

tern corresponds to the width of the desired bag. The side folders D D fold and press the sides of the paper over and upon the bottom lap, which has been previously turned down.

36. Q. Please look at "Defendants' Exhibit J," being patent granted E. W. Goodale, May 29th, 1855, and state if you understand the manner of cutting and folding the bag therein described.

A. I do.

107 37. Q. Please describe it, and also annex to your answer a model of the blanks.

A. The paper is cut from a continuous roll into the form of blank now shown, and marked "Defendants' Exhibit E. W. Goodale, Bag." The dotted lines thereon indicate the lines of folding. The figures marked thereon correspond with those in the drawing marked "Figure 4." The piece is folded in the line 1, 1, bringing the part 3 on the part 4. The side laps 2, 2, of the part 4 are then folded over on part 3, completing the bag.

38. Q. Please look at "Defendants' Exhibit O," being letters-patent granted to Henry R. David, October 5th, 1858, and state if you understand the construction and operation of the knife therein described.

A. I do understand such construction and operation.

39. Q. Please state how the construction and operation of said knife corresponds or differs from that of the cutting-device shown in William Goodale's patent.

A. It corresponds with the William Goodale knife in part. Both knives are serrated, and are arranged to operate vertically, cutting paper supported by a level supporting surface, in which supporting surface a slot is arranged of form corresponding to the form of the knife, into which slot the knife descends in cutting the paper. The form of the knife in David, however, can be described as being in three vertical planes, while that shown in the William Goodale patent can be described as being in five vertical planes. Both cut the paper so as to leave a projection from which the bottom of the bag is formed. Both knives make a smooth cut. The particular form of the David blade is indicated by a portion of Figure 5, in the drawing annexed to said letters-patent, and also in Figures 1, 2, and 3.

40. Q. Please annex to your deposition a blank of the form shown and described in said Figure 5, indicating upon it the lines in which said blank is folded in order to complete the bag.

A. The blank now shown and marked "Defendants' Exhibit David, Bag," corresponds to the one shown in said letters-patent. The dotted lines thereon indicate the lines of folding.

108 41. Q. Please look at "Defendants' Exhibit K," being a copy of William Brown's patent, and state if you understand the construction and operation of the tube-forming devices therein shown and described.

A. I do.

42. Q. Please state the manner of forming the tube shown therein as compared with that shown in the Rice re-issued patent.

A. In the Rice patent the paper is drawn along a continuous former into a tubular shape, and, near the end of said former, pasted, forming a tube. In the William Brown patent, now shown, the paper is drawn from a continuous roll progressively through a series of guides, such series of guides (shown more particularly in Figure 3 of said letters-patent) having such peculiar shape and such relation to each other as to gradually draw the paper into a tubular form, when it is pasted. So far as forming the paper into a tubular form, the series of guides

referred to appear to be the substantial equivalent of the supporting-bar and surrounding guides shown in the Rice patent.

Owing to the lateness of the hour, and by consent of the parties, I adjourn the further continuance of this examination till to-morrow, August 15th, 1874, at 11 o'clock a. m., at place named in the above notice.

DAN'L T. POTTER,
Sp. Examiner.

Pursuant to adjournment as above, I continued this examination and the taking of evidence at 11 o'clock a. m., Aug. 15th, 1874, at the above-mentioned place.

DAN'L T. POTTER,
Sp. Examiner.

109 Cha's D. Moody, in continuation of his examination, deposes and says as follows:

43. Q. Please look at "Defendants' Exhibit L," being E. W. Goodale's patent of October 9th, 1855, and state whether you understand the mode therein described of folding and forming the envelope.

A. I believe I understand the operation referred to, which substantially is as follows: The blanks having been cut to the desired form, and having been suitably pasted and gummed, are brought under the action of a plunger, whose shape conforms to that of the finished envelope or bag. The plunger is caused to descend, forcing the blank downward into a box or folding stand, whose shape conforms to that of the plunger. As the blank is depressed, the folding stand, having hinged folders of shape conforming to the flaps of the envelope, presses against the plunger by virtue of springs shown in Figure 7, and when the plunger is withdrawn from the blank the folds of the stand complete the folding over of the laps to form the central portion of the envelope, such laps being folded in the order enumerated in Figure 6.

44. Q. Please state whether you find in such description any explanation sufficient to enable a bag to be formed and pasted by that machine.

A. I do.

45. Q. Please look at "Defendants' Exhibit E. W. Goodale, Envelope," and state whether, in your opinion, an envelope or bag of that form could be folded and pasted upon said machine, following the description contained in specification of the patent you now hold and shown in the drawing.

A. I think it could.

Cross-examined by John M. Krum, esq.:

X 46. Q. What mechanical pursuits had you followed previous to engaging in your present business?

A. Principally the manufacture of stoves.

X 47. When did you become solicitor for the defendants?

A. I procured two letters-patent, one for each of the defendants,
110 the latter part of the year 1873. I think I became their solicitor for such patents a short time previous to the date referred to.

X 48. Q. State how long previous to the filing of the applications of the patents referred to had you been consulted by the defendants, or either of them?

A. I don't remember precisely, but it was a very short time before.

X 49. Q. At the time when you were first consulted by the defend-

ants, you knew, did you not, that this suit was then pending against them?

A. Yes.

X 50. Q. Were the defendants, at that time, or either of them, engaged in making paper bags in this city, and, if so, at what place?

A. They were on Second street, near Cherry, I think, in S't Louis.

X 51. Q. The patents that you referred to as having been solicited for are the same, are they not, that are made "Defendants' Exhibit C and D"?

A. Yes.

X 52. Q. Did you not draw the specifications attached to the patents respectively, that are made "Defendants' Exhibits C and D"?

A. Yes.

X 53. Q. At the time of drawing the specifications attached to patent No. 146773, had you ever seen a paper-bag machine that was operated with the knife and machine known as the Rice patent?

A. No.

X 54. Q. At the time of drawing the specifications attached to patent No. 146773, had you ever seen a paper-bag machine that was operated with the knife and machine known as the William Goodale patent?

A. No.

X 55. Q. At the time of drawing the specifications to the patent No. 146774, had you ever seen the knife or cutting apparatus that was used in either the Rice or William Goodale patented machines?

A. No.

111 X 56. Q. What paper-bag machine, if any, had you ever seen in operation before you drew the specifications attached respectively to patents No. 146773 and No. 146774?

A. I had seen the machines of defendants, and I had seen a machine operated on Seventh street below Walnut, in S't Louis.

X 57. Q. How long before you drew the said specifications had you seen the machine operated in Seventh st.?

A. I cannot state accurately, but it was three or four years before.

X 58. Q. Had you ever seen a model of the knife or cutting apparatus that is used in what is called William Goodale patented paper-bag machine?

A. I think I had seen a drawing.

X 59. Q. When and where was it that you first saw a drawing of the cutting apparatus used in the last-mentioned machine?

A. I cannot state the time exactly. I think the place was in my office. I think it was within a year of the present time.

X 60. Q. You were asked by defendants' counsel, in interrogatory No. 27, whether it would be possible for the Rice or William Goodale cutting devices to produce a blank like that cut by the R. W. Murphy knife. You answered, "In my opinion, it would not." Now, explain why not, and what the substantial difference would be, if any.

A. The blank cut by the R. W. Murphy knife at its ends is provided with peculiar serrations, such serrations being absolutely essential in the formation of the bag. The blanks formed by the cutting devices employed in the Rice and W'm Goodale patents have smooth edges. The aim in the William Goodale and the Rice patents evidently is to secure a projection, out of which projection the bottom of the bag is to be formed. In the blank cut by the R. W. Murphy knife there is no such projection from which to form the bottom of the bag. The differences indicate, in my opinion, a substantial difference between the R. W. Murphy construction and those of Rice and William Goodale.

112 X 61. Q. Is not the object of the R. W. Murphy knife, by the

serrations in cutting the paper, to provide for a lap at the bottom of the bag, and do not the serrations simply provide a method or means of pasting the lap?

A. The serrations provide means by which the paste can come upon the under fold of the bag, so that when a portion of the end of the bag, including not merely the serrations, but extending in beyond them, is turned upon the central portion of the bag, such folded portion will adhere closely, and form a practical bottom to the bag. It is not the object of the R. W. Murphy knife to provide a lap which projects beyond the rest of the bag, out of which to form the bottom of the bag.

X 62. Q. Does the R. W. Murphy cutting apparatus cut a bag without any provision for or regard to a lap at the bottom of the bag?

A. If by the term lap is meant a projection beyond the rest of the bag, it does.

X 63. Q. What do you mean when you use the term "lap" in regard to the formation of paper bags?

A. I should term it a projecting portion, which can be turned over upon some other part, if desired.

X 64. Q. In framing the specifications annexed to patent No. 146773 and No. 146774, did you use the term "laps" in the sense or signification in which you now use it?

A. I do not remember.

X 65. Q. I will read to you from specification in patent No. 146773: "Sufficient paste will pass through to the under side of the bag to insure a perfect adhesion of the lap when folded up, as shown in Figure 4." Now, will you explain in what sense or signification you use the term "lap" in the specification as I have read it to you?

A. As I remember, I referred to the whole portion of the end of the bag which is turned up in forming the bottom of the bag.

X 66. Q. Did you ever observe how the paste is applied on and over the serrated bag cut by the R. W. Murphy device at the bottom of the bag? I mean how much beyond the depth or base of the larger serrations is the paste applied?

A. I do not remember exactly, but I think when the bag is fin-
113 ished the paste will be as far up on the bag as the points of the serrations will extend when folded over. Indeed, I may say I have seen it so applied.

X 67. Q. Are you positive that the paste is applied at all beyond the base of the larger serrations?

A. Yes.

X 68. Q. Now, are you not mistaken in regard to this matter, and is it not the fact that the paste applied on the bag cut by the R. W. Murphy device does not extend more than a half inch above the base of the larger serrations?

A. I am not mistaken. Whether it extends "a half inch above the base of the larger serrations" depends upon the proportion of the bag that is turned over to form the bottom. The particular bags that I have seen are turned over variously, bags of larger sizes being turned over more than those of smaller sizes.

X 69. Q. Is not the whole object of cutting the larger serrations to provide for the taking of the paste of the smaller projections left by the smaller?

A. No.

X 70. Q. How could you paste the smaller projections on the R. W. Murphy bag without having the larger serrations?

A. If by that is meant the central portion of the bag, it could be easily

done by giving a slight taper to the bag in folding it, longitudinally, to afford necessary space for the paste to adhere to it.

X 71. Q. The base of the bag, then, in such case, would not be square?

A. Yes, it would.

X 72. Q. When you speak of giving the bag a "slight taper," in what direction would the taper be?

A. Longitudinal.

X 73. Q. Explain, if you please, what purpose, if any, the larger serrations in the bag cut by the R. W. Murphy device or machine serve.

A. They serve two purposes, at least. One is to assist in forming the bottom of the bag and another in enabling the blank to be properly drawn through the rolls.

114 X 74. Q. Can a bag be cut and completed on the R. W. Murphy machine without cutting the larger serrations at the bottom?

A. I understand for the purposes of this answer the term "R. W. Murphy machine" to include all the devices shown in "Defendants' Exhibit, M. Murphy machine," saving that the R. W. Murphy knife is substituted for the M. Murphy knife. With such understanding, it can be.

X 75. Q. Do you mean that the whole bottom of the bag with the R. W. Murphy device can be cut with small serrations only, and be pasted and folded to make a bag complete?

A. Yes.

CHA'S D. MOODY.

Sworn and subscribed before me this 15th day of Aug., A. D. 1874.

DAN'L T. POTTER,
Sp. Examiner.

Here defendants announced that they closed.

DAN'L T. POTTER,
Sp. Examiner.

115 And afterwards, to wit, on the 6th day of October, A. D. 1874, the following appears of record, to wit:

United States circuit court, eastern district of Missouri. Equity.

UNION PAPER-BAG MACHINE COMPANY ET AL., compla'nts,
vs.
MERRICK MURPHY ET AL., RESPONDENTS.

It is hereby stipulated by the parties to the suit above named that the respondents may offer and read in evidence, with same force and effect, and subject to the same legal objections as if the same had been regularly taken as testimony in said cause, the *testimony in said cause* testimony of Horatio G. Armstrong, on pages (new) 257–284 of said record; and also the testimony of William Goodale, found in said record, and at pages (new) 307–317, and may in like manner offer and use the several exhibits attached to said testimony, or copies thereof, duly certified by the clerk of the United States circuit court for said

116 southern district of Ohio.

It is further stipulated that the complainants may so offer and read any testimony or exhibits found in said record or filed in said causes, of which they may give notice to the respondents by attaching a memorandum thereof thereto

GEORGE HARDING,
Solicitor for Plaintiffs.
SAMUEL S. BOYD,
Respondents' Solicitor.

In accordance with the above, complainants give notice that they will offer and read in evidence the testimony of Jno. A. Smith, on pages (new) 420 to 430; also the testimony of S. Houghton, (new,) 490 to 501; also G. W. Palmer, (new,) 508 to 511, and C. H. Morgan, (new,) 512 to 522.

GEORGE HARDING,
Solicitor for Plaintiffs.
SAMUEL S. BOYD,
Respondents' Solicitor.

Which said evidence is in words and figures following, to wit:

117 United States circuit court, southern district of Ohio. In equity.

THE UNION PAPER-BAG MACHINE COMPANY et al.,
vs.
MORRIS H. NIXON ET AL.

Deposition of a witness produced, sworn, and examined on behalf of the complainants in the above-entitled cause, before me, W'm B. Dayton, notary public, and special examiner in said cause, pursuant to notice, on Wednesday, September 11, 1872, and, by adjournment, on Friday, the 13th day of September, at my office, No. 522 Walnut street, Philadelphia, Pennsylvania.

WEDNESDAY, *Sept. 11th*—2½ p. m.

Present, Geo. Harding, esq., for complainants; James Moore, esq., for defendants.

JOHN A. SMITH, a witness produced on behalf of complainants, and by me first duly sworn, deposes and says:

118 1. Q. Please state your name, age, residence, and occupation.

A. My name is John A. Smith; am fifty-two years of age. I reside at Walden, Vermont; am a mechanic and inventor.

2. Q. Did you devise or get up any inventions in bag-machinery, and, if so, when?

A. I did; in 1853.

3. Q. Where did you reside at that time?

A. In the town of Clinton, Mass.

4. Q. In whose employment were you then?

A. In A. L. Fuller's.

5. Q. When did you work for him?

A. I commenced in January, 1853.

6. Q. How do you fix that date?

A. By going to an old time-book of A. L. Fuller's.

7. Q. If during that year (1853) you had anything to do with making paper bags, state how your attention was first directed to the subject.

A. It was through one M'r Stillman Houghton. He had been to Boston, and noticed that they were making a great many by hand.

119 He came to me and suggested to me the idea that a machine for the purpose would be a good thing, and thought I had better try to produce a machine to make them; and he induced me to try to build one, which I did.

8. Q. When did you commence the construction of the machine?

A. July 1st, 1853.

9. Q. Did you know Benjamin F. Rice at this time; and, if so, what were your relations with him?

A. I did; I have had him work for me, some on looms and some on bag-machinery.

10. Q. State whether or not he told you that he had a plan or mode of making paper bags; and, if so, what description he gave you of it first, and when.

A. He did tell me so; it was to form the paper into a tube, or what you might call a flat tube, and taking it directly from the roll of paper by fetching the paper on to the platform or former and folding it around this former; that was in the fall of 1853.

120 11. Q. Did M'r Rice exhibit to you any experimental arrangement or device to show any plan of making paper bags? If so, state when he exhibited to you an experimental arrangement for this purpose, and describe the same.

A. He did, in 1854. It was a former upon which he drew his paper from the roll, at the same time folding each side under the former, which completed a tube.

12. Q. Did he operate said experimental device? If so, describe how the same operated, or how he operated it.

A. He did; it was done by hand, by turning the rolls with a crank arrangement.

13. Q. Did he at the time of showing you this experiment say anything to you on the subject of preventing waste in the manufacture of bags?

A. He did; he esteemed it of some importance.

14. Q. Did he explain or illustrate to you, at the time of showing you that experiment, how he proposed to prevent waste?

121 A. He did; by cutting the paper beveling or slantwise across the end of the former of that shape, which cut one side shorter than the other side, leaving the paper in right shape to fold over to form the end of the bag. This (marked by examiner "John A. Smith, No. 1") is the shape of the bags made by him on that experimental machine.

15. Q. What was the shape of the end of the former where the bag was cut, and how was the cut made on that experimental arrangement?

A. The former consisted of a piece of wood some five or six inches in width, about six feet in length, and between ¾ of an inch and an inch in thickness. It was beveled at the end where the bag was cut slantwise right across the entire end of the former. It was cut with a knife, or notched piece of steel like a saw-blade, at one blow.

16. Q. Was M'r Rice, to your knowledge, engaged in carrying out this idea or invention of his; and, if so, when, to your knowledge?

122 A. He was; he built a machine in 1855; in the fall of that year.

17. Q. What time in the year 1854 was it that he showed you the experimental arrangement as to which you have testified?

A. It was in warm weather; I think in July.

18. Q. What were M'r Rice's pecuniary abilities?

A. As for money, I suppose he hadn't much. I should call him a poor man.

Cross-examined by James Moore, esq.:

X 19. Q. Where did you live during the year 1854?

A. In the town of Clinton, Mass.

X 20. Q. What was the size of the experimental devices which you say B. F. Rice showed to you in the year 1854?

A. The former, some six feet in length, somewhere between ¾ of an inch and an inch in thickness, and about five or six inches in width. That embraced most of the machinery at that time. There were two rolls attached near the end of the former for drawing the paper along.

X 21. Q. Was this former mounted into a frame with the
123 requisite machinery, or any of it, for the purpose of making bags or tubes?

A. I should think not.

X 22. Q. If I understand you correctly, there was simply a former and two rolls for drawing the paper from the roll of paper. Is that correct?

A. Yes, sir; it is.

X 23. Q. What was the relative position of these rolls, and each of them, to the former?

A. There was a space cut through the end of the former. One of the rolls lay directly under and in this space, a portion of it; the other roll directly on the top of the paper over the space coming in contact with the paper. The bottom roll was covered with sand-paper, and the pressure of the two rolls together on the paper drawed the paper along on the former.

X 24. Q. This former was lying upon the ground when you saw it, was it not?

A. It was not.

X 25. Q. What was its position, and where was it when you saw it?

A. It was in a shop which belonged to M'r Rice's father. It was placed on some stands. There were two holes bored into the
124 board near the centre, which kept it up from the floor.

X 26. Q. How did these holes sustain it from the floor?

A. I think they acted as legs; and there were also two corresponding holes in the floor itself that they went into, and which kept it up.

X 27. Q. If I understand you correctly, then, there were two holes bored into the board, and by some means these holes were inserted into other holes in the floor, and thus sustained the board. Is that right?

A. Yes, sir; that is correct.

X 28. Q. Well, then, the board was bored into the floor?

A. I don't understand the question.

X 29. Q. How long did you examine this board at the time referred to?

A. Perhaps an hour I was there.

X 30. Q. Did you ever see it at any other time?

A. I never did.

X 31. Q. Was the upper roll fixed in juxtaposition to the lower roll, or did M'r Rice show you by holding the upper roll in his hand, and thereby show you the position he intended they should be placed in?

125 A. They were in bearings—holes bored in a piece of board.

X 32. Q. Did M'r Rice, at this time, have a knife made with which to cut off the bags?

A. I think not.

X 33. Q. Did he describe to you, at that time, the form of knife intended to be used by him for that purpose? If so, please repeat that description, if possible, in his language; otherwise, in substance.

A. It was to be cut with a blow, with a piece of steel, say a saw-plate. That is all I recollect now of his rough experiment.

X 34. Q. How high was the axial line of the upper roller above the floor?

A. I should judge two feet, or near that.

X 35. Q. You say, in answer to a question direct, that M'r Rice showed you how to operate this experimental device. What is meant by that? How could he show you how to operate it unless there were more devices than a pair of rolls and a piece of board?

A. He simply wanted to show me that paper could be taken from the roll and drawn on to this board and folded round the edges so as to form a tube.

126 X 36. Q. At the time of examining this device, which you say was in July, 1854, how far had you progressed in getting up a machine of your own?

A. I had my first machine so that it would fold, paste, and deliver a perfect bag from the machine, but could control the paper only by placing the sheets on by hand.

X 37. Q. Was it before or after this time that Benjamin F. Rice worked for you, and what was the character of service performed by him for you?

A. Some previous and some after. He worked on looms and on my bag-machines.

Examination adjourned to Friday next, September 13th, at 10 o'clock a. m.

FRIDAY, *September 13th*—10 a. m.

Present, George Harding, esq., for complainants; James Moore, esq., for defendants.

Cross-examination of John A. Smith resumed:

127 X 38. Q. What was the shape of the end of the former or board against which the paper was to be cut off in the experimental devices of 1854?

A. It was bevelled or cut slantwise; that is, it was bevelling across the end.

X 39. Q. Were there any bags or tubes cut off on this experimental device, or was it capable of permitting bags or tubes to be cut off upon it?

A. There were not, nor was it so capable.

X 40. Q. How long after this time was it when you first saw this machine as changed, as you have testified in your direct examination?

(M'r Harding requests the counsel to point out to witness to what testimony he refers, as it has been two days since the direct examination, and states that he is unable to find that the witness stated that this machine was changed.

Counsel for respondents, by way of reply, says that the witness may examine the deposition, which is here handed to him, and, further, that he does not know of any means whereby counsel can be prevented from instructing his witness in the form of objection upon paper

128 as to how to answer a question.

M'r Harding objects to the question on the ground that it implies that the witness stated in his testimony that the machine of 1854 was changed, whereas he has not so stated.)

A. I don't understand the question.

X 41. Q. The only thing asked in the question is the time that elapsed before the witness saw the machine next time, as testified to by him, and if he will read the question, counsel does not know of any means of making it more explicit.

A. I don't recollect the exact length of time; I think it may have been in the fall of 1855, or possibly in 1856.

X 42. Q. It may have been in the fall of 1856, may it not?

A. It might.

X 43. Q. It may have been in the spring of 1857, may it not?

A. I think not; I was in the West in 1857.

X 44. Q. When did you go West? State the date, if you can.

129 A. It was in 1857, but I can't recollect when it was; should judge about the middle of the year—September, I think.

X 45. Q. Then it is quite consistent with that, if that be your only means of recollection, that you should have seen the machine the second time in the spring of 1857, is it not?

A. It was in 1855 or 1856 that I saw the next machine.

X 46. Q. Where did you see it? State the building or shop, as well as town.

A. It was in Rice's father's shop, in the town of Clinton, Mass.

X 47. Q. Are you familiar with the patent granted upon the invention of B. F. Rice, for improvement in machines for making paper bags, dated April 28, 1857?

A. I don't think I am.

X 48. Q. Are you so familiar with drawings, and have you such recollection of that machine that you could tell from drawings, if now handed to you, whether they correctly represent that machine?

A. I think I could.

X 49. Q. You will please examine a certified copy of the patent

130 granted to B. F. Rice, "Respondents' Exhibit, Patent No. 10," now handed to you, and state wherein that agrees or differs with or from the machine which you say you saw in B. F. Rice's father's shop in 1855 or 1856.

A. I don't think there is any difference except that it may be in the head movements of the work; that is, the gearing here, (pointing to left hand of Fig. 1 on drawings.)

X 50. Q. When M'r Rice showed you this machine, did he make any paper bags upon it?

A. He did.

X 51. Q. How many?

A. Well, I should judge some two or three dozen while I was there.

X 52. Q. How long did it take to make these two or three dozen?

A. I am unable to say; I can't recollect the time; twenty minutes, perhaps.

X 53. Q. You will please make exhibits, to be attached to your deposition, showing the form of bags made upon your machine when first operated for the making of paper bags.

A. This (marked by examiner "John A. Smith, No. 2") shows

131 the form of bag made upon my machine when first operated.

X 54 Q. When was this?

A. In September, 1853.

X 55. Q. How many were made upon it at that time like "Exhibit John A. Smith, No. 2?"

A. Several hundred; it might have been a thousand in all.

X 56. Q. What became of these bags?

A. I gave them away mostly to grocers in town to try them.

X 57. Q. Do you know what the grocers to whom you gave them did with them?

A. I do not; I gave them to them to use; whether they used them or not I do not know.

X 58. Q. Where was this machine operated and those bags made upon it? State building, street, number, city, county, and State.

(Objected to as calling for irrelevant matter to this case, and which has no basis in the examination-in-chief, or in the pleadings.)

A. In the State of Massachusetts, Worcester County, town of
133 Clinton, in the building that was known or called "Fuller's mill."

X 59. Q. State the street, if there was a street, and, if not, state whether or not Fuller's mill was well known by that name throughout that town?

A. It was well known throughout that town by that name; this building was a short distance from the road that came from the village of Clinton, and was on a short path or small road running out of that road, having no name to it that I know of.

X 60. Q. Was it not publicly known in the village of Clinton that bags of this kind had been made at that time?

(Same objection as to X 58. Q.)

A. I cannot say, but I presume they did know it.

X 61. Q. Was there any attempt to keep it a secret, or did you show the machine and bags to your friends and neighbors generally?

(Same objection as to X 58. Q.)

A. There was no attempt to keep it a secret; I did show them to a great many of my friends.

133 X 62. Q. Can you now state from recollection or from an examination of "Respondents' Exhibit, Patent No. 10," heretofore shown to you, what was the character of power or devices used for the purpose of bringing the knife down to cut off the bag?

A. I think it was a cam motion, operated quick, in the first machine.

X 63. Q. Was there a positive cam motion to compel the knife to come down, or was it a cam to bring the knife up and permit the fall by gravity?

A. I do not recollect.

X 64. Q. Which of these modes is shown in "Exhibit, Patent No. 10?"

(Objected to that the witness has not been called as an expert, nor in reference to the Rice patent, by the complainants.)

A. The cut in this is down on the paper.

(X 65. Q. X 64. Q. repeated.)

(Some objection as to X 64. Q.)

A. I am not well enough acquainted with the drawings.

X 66. Q. Do you recollect whether the link, lever, and cam that
134 operated the breaking bar were outside of the machine or inside; that is, in such a position that standing at the side of the machine a person would not be able to see them?

A. I cannot recollect.

X 67. Q. Can you tell from the patent how they are?

(Objected to because the witness has not been called as an expert by the complainants.)

A. I cannot from drawings.

X 68. Q. In your opinion, are you or not better skilled in the art of making paper-bag machines than mechanics generally whose business it has been to make paper-bag machinery?

(Same objection.)

A. I think I am not.

X 69. Q. How many men do you know, either personally or by reputation, who are as well skilled as yourself in paper-bag machinery?

(Objected to.)

A. There may be two or three or half a dozen.

135 X 70. Q. Do you think there is any man living who possesses a better knowledge of paper-bag machinery than yourself?

(Objected to.)

A. I do; a good many.

X 71. Q. Who invented the first paper-bag machine which was practically operative, so far as you know?

(Objected to as irrelevant.)

A. A man by the name of Woolsey, or Wolle, of Philadelphia, as far as I know.

X 72. Q. Who invented the second?

(Same objection.)

A. I suppose I, John A. Smith, of Clinton, did.

Redirect examination:

Cross-questions 25, 26, 27, and 28 are read to the witness, and he is asked to explain what he understood at the time he gave those answers as the idea he was conveying as to the mode in which the two holes referred to supported the former.

Witness replies: I meant that there were two studs or legs in the holes.

136 73. Q. You have said, in your answer to X 32. Q., that you thought that M'r Rice did not, at the time you saw the experimental device in 1854, have a knife made with which to cut off the bags, and you have stated in your answer to 14. X Q. that he showed you shape for bags like "John A. Smith, No. 1," at that time. Please explain what you meant by those two answers.

A. I meant that he had no knife manufactured for the purpose at that time, but he used a knife from his pocket for that purpose; cut them off by hand.

74. Q. Were you absent from Clinton during any considerable portion of the year 1855; and, if so, how long, and where were you?

A. I was absent a number of months; I left Clinton either the first of April or May for Leeksville, North Carolina, to put up machinery.

75. Q. Do you know how many months?

A. I do not; I think from three to four.

JOHN A. SMITH.

137 Sworn September 11th, and subscribed before me this 13th day of September, A. D. 1872.

WILLIAM B. DAYTON,
Examiner.

United States circuit court, southern district of Ohio.

THE UNION PAPER-BAG MACHINE COMPANY et al.
vs.
MORRIS H. NIXON ET AL. } 1481.

Examination of witnesses on behalf of complainants under the sixty-seventh rule in equity, as amended, pursuant to the annexed notice.

Present for the complainants, E. J. Howlett; for respondents, James Moore.

By request of parties, it is ordered that these depositions be taken by question and answer.

J. HENRY HILL,
Special Examiner.

STILLMAN HOUGHTON, a witness produced on behalf of complainants, being first duly sworn, deposes and says, in answer to the
138 following interrogatories propounded by E. J. Howlett, as follows:

By M'r Howlett:

1. Q. State your name, age, residence, and occupation.

A. My name is Stillman Houghton; my age is fifty-two years; my residence, in Worcester, Massachusetts, and I am a manufacturer of stocking supporters, and articles of a like nature, by occupation.

2. Q. Where did you reside in the years eighteen hundred fifty-three, four, and five?

A. In Clinton, Massachusetts.

3. Q. If, during the time, you had your attention called to the manufacture of paper bags, state where it was and the circumstances which led you to consider it.

A. I did have my attention called to that subject. It was at Charleston, Massachusetts. I was on a visit to my sister's. She was then making paper bags by hand for a man by the name of Charter. I saw him there at the time, and said to him I thought there might
139 be a machine for making paper bags by power; and then I told him I thought we had mechanics in Clinton that could make a machine for doing them. The remark he made was he hoped there wouldn't be one got up, for he then had about thirty or forty girls and women that were taking his work, and should prefer, on their part and his own, to have it remain as it was; but said that if there was a machine got up he would like to know of it before we disposed of it to any one else. I told him that I would let him know if there was anything done about it.

4. Q. Please give the year and month, as near as you can, when this took place.

A. Eighteen fifty-three, in the month of June.

5. Q. If, in consequence of that conversation with M'r Charter, you did anything about finding any mechanic, please state what you done.

A. I talked with a M'r John Smith, of Clinton; he was then a resident of Clinton; I bought a sample of Charter's bags and showed it to M'r Smith, and told him I thought if there could be a machine
140 invented for making paper bags that it might be a good thing, and told him the conversation that I had had with M'r Charter, and the number of hands he employed; and if he could construct a machine for making them by power that I would furnish some money to do it; the answer he gave me, that he thought there might be a machine got up for making them by power, but he didn't know as he could do anything about it, as he had been into so many operations, but would give it a thought.

6. Q. Did you have any conversation with any other parties?

A. I did; with E. W. Goodale, then a resident of Clinton; I told him the same as I had M'r Smith. He said that he would look into it a little; he was going to Worcester in a few days and would call and see D'r Hawes' envelope-machines, if he could get into the factory. After he came back from Worcester I asked him if he had seen Hawes' envelope-machine; he said he had, but seen nothing there that he could
141 work in for a bag-machine. He then said he thought he would have nothing to do with it as he had no time to give his attention to it.

7. Q. Did you have any conversation with any one else in relation to bag-machinery about that time? If so, who?

A. I did; with M'r Frank Rice—B. F. Rice, of Clinton. That happened on July 4th, 1853. The conversation I had with him was about the same I had with the others. I told him the conversation I had with Charter, &c. He said that he thought he had an idea that could produce a bag by power without waste of paper. I then said we will drop into the saloon that was then kept by Tom Eaton. We went in, and I was with him perhaps an hour or more; and he give me his idea for making a bag from the roll by forming of it into a tube around a former, and bevelling the ends so as to give a lap to turn over for the bottom of the bag. I have a little model which I produce. This comes in afterwards. I am a little ahead of my story. That is about all I can recollect that was said there then.

142 8. Q. Did M'r Rice exhibit to you any experimental arrangement or device to show any plan for making paper bags? If so, state when he exhibited to you this experimental arrangement for this purpose, and describe the same; and if you have said model, or a copy of it, in whole or in part, you will please produce the same, and describe wherein the same agrees or differs from the one shown you by B. F. Rice, if he showed you any.

A. He did; it was in the year 1854. I think it was in April. I think it was fast-day, in the fore part of April, as near as I can recollect. He showed me an experiment, or a machine something like this model which I produce, drawing a paper from a roll, forming of it into a tube, and cutting it off beveling, so as to leave the lap to form the bottom of the bag. He also showed me the mode of cutting it off, using an old wood-saw—piece of a wood-saw. I produce the mode and mark

143 it "Exhibit Rice, Experimental Machine." I don't see as it differs essentially from the one which B. F. Rice showed me; it is substantially like it.

9. Q. Was there not on that model a paste-dish in which revolved a pasting-roll, and was there not a roll either above or below the one in the former, which acted in combination with it to carry the paper forward?

A. I think there were.

10. Q. Did he operate said experimental device? If so, describe how the same was operated, and if you have any bags or blanks which will illustrate the form made at that time, you will please produce them.

A. He operated said experimental device. He drawed the paper onto the former, either by hand or a crank, and then cut it off with the saw. I have a couple of blanks which will illustrate the form as then made, which I produce and mark "Houghton Bag, No. 1," and "Houghton Bag, No. 2," respectively. "Houghton Bag, No. 2," is a finished bag.

144 11. Q. How 'as the end of the bag pasted at this time?

A. It was pasted by hand.

12. Q. Did he say anything to you at this time upon the subject of preventing waste in the manufacture of bags?

A. I don't recollect as he did.

13. Q. Did M'r Rice, to your knowledge, continue in carrying out this idea or invention of his?

(M'r Moore objects to the question as leading.)

A. He did.

14. Q What was M'r Rice's pecuniary ability at this time, 1853–'4–'5?

A. Well, as far as I could judge, he was poor; that would now convey it. He had nothing only what he worked for.

15. Q. Did he apply to you for help during this time?

A. He did not; not to my recollection.

16. Q. Did his father ask you to assist him?

A. He did.

17. Q. Is B. F. Rice now living?

A. He is not.

18. Q. Are you a machinist, and do you understand drawing?

A. I am not a machinist, and do not understand drawings.

145 19. Q. How were you employed during the years 1853-'4-'5?

A. I was employed by the Clinton Company as an overseer in their coach-lace establishment.

20. Q. Was M'r B. F. Rice employed by that company at any time during those years?

A. I couldn't say as to that; he might have been and might not.

21. Q. Was not M'r B. F. Rice considered in that community a good mechanic and an inventive genius, and an original inventor; and did you ever call upon him to make mechanical inventions or changes in any machines which you had in charge?

A. He was so considered. I have called upon him to make mechanical inventions and changes in machines which I had in charge.

22. Q. Did he make any changes of value?

A. Yes, I think he did.

23. Q. Did you know one J. H. Vose, residing in Clinton in 1853-'4-'5; and, to your knowledge, was he familiar with M'r Rice's movements in paper-bag machines or not, and is he now living?

A. I knew one J. H. Vose, residing in Clinton at the time en-
146 quired of. I think he was familiar with M'r Rice's movements in paper-bag machines. He is not now living.

24. Q. What was E. W. Goodale's financial condition in 1853-'4-'5?

A. It was considered good; he was considered to be worth from three to six thousand dollars.

And in answer to cross-interrogatories propounded to him by James Moore, counsel for respondents, as follows:

By M'r Moore:

X 1. Q. Do you swear positively that the end of the bar or former, exhibited to you in 1854 by B. F. Rice, was cut off slantingly, as shown in "Exhibit Rice, Experimental Machine"?

A. I do.

X 2. Q. Did not M'r Rice say to you at that time that the cutting off a bag of that form at the end was an unavoidable injury or inconvenience, or words to that effect?

A. I don't recollect of any such conversation.

X 3. Q. Please state exactly what was said; and if you can't do
147 that, state the substance at that conversation by each of you in reference to the utility or inutility of that sloping face of the bar or former?

A. I can't say what was then said at that time; he merely showed me his mode of producing a bag without waste, by cutting off the bevelled end.

X 4. Q. Then do you allow me to be understood as swearing that B. F. Rice at that interview in 1854 said to you that the purpose of making the end the shape shown in the model was to save paper, or avoid waste?

A. That is what I understand.

X 5. Q. Did you have subsequent conversation with B. F. Rice on this subject? If so, state when they occurred, and what was said by each.

A. I had a conversation with him in 1853, July 4th; he told me that

he had an idea that a paper bag could be made by forming the paper into a tube and cutting off the bevelled end. The conversation further I had with him I don't recollect. I was with him an hour or more.
148 I think we had subsequent conversations, but I couldn't state when they occurred. On my part, I don't know that I had anything to say. I heard what he had to say, and that is as far as I recollect.

X 6. Q. How often did you see the experimental machine of Rice intended to be represented by the appearance of "Exhibit, Rice's Experimental Machine"?

A. I don't know that I saw it after that till there was a bag produced by power.

X 7. Q. How do you know that it was in April, 1854, and not in April, 1855, that you saw this experimental machine?

A. Well, I know it by circumstances that occurred at that time, as I was then, between that time, between the fourth of July, 1853, and April, 1854, partially engaged to furnish money for another machine to M'r Smith, I think it was.

X 8. Q. Did you, or not, on the thirtieth day of April, 1867, testify in a case in which Benjamin S. Binney was complainant and An-
149 son Hollingsworth and Leonard Whitney, j'r, were respondents?

(Counsel for complainants objects to the reference to the witness to the testimony taken in a previous suit between parties and others interested in this suit.)

A. Well, I can't say to the parties; the date is so long ago I can't recollect.

X 9. Q. In order that the witness' memory shall be aided in this matter, he is informed by counsel that the depositions referred to was given on behalf of the respondents or defendants; that the attorney for the respondents was Chauncey Smith; the examiner, H. Farnum Smith; the place the depositions were taken, as the counsel is advised, was Boston; but as to this latter matter counsel does certainly know. Witness is again asked if he does not recollect that circumstance. X Q. 8 is repeated.

(Same objection as before.)

A. I don't recollect that.

X 10. Q. A printed copy of deposition referred to in the preced-
150 ing cross-interrogatory is hereby handed witness; he is requested to examine it and state whether that enables him to recollect the matter in question.

(Same objection as before.)

A. All that I can recollect is that I was called there and testified, but how I cannot say. I don't recollect who the parties of the said suit were. It has slipped my mind, and I really couldn't state any further.

X 11. Q. Do you recognize printed deposition handed to you during the last cross-interrogatory as being a copy of deposition then made by you?

(Objected to by M'r Howlett, as before, and for the further reason that it is a copy, and the figures may be typographical errors, as they often occur in printed testimony, and has appeared in this case on page 207; and he further objects unless the original deposition is shown the witness.)

A. Well, I don't recognize it.

X 12. Q. You will please state whether or not the following in-
151 terrogations were put to you and answered in the following lan-

guage at that time, which interrogatories are numbered in the said printed copy from interrogatory 33 to interrogatory 37, inclusively:

Int. 33. What passed between M'r Rice and yourself at the time you first spoke to him on the subject?

(Objected to.)

A. M'r Rice and I were talking; we went into a saloon on Church street, kept by Thomas Eaton; we had a conversation there, I should think over an hour, on bag-machines. He gave me quite a number of ideas; I recollect one in particular. It is so long ago I can't recollect all about it. This one he spoke of in particular was the pasting of the bag in the centre, and he proposed to take it from the roll. I don't recollect how he said it should be constructed, only he should draw it on to a former and paste it in the centre, and then arrange it so
152 as to cut the bags off bevelling, so as to form this lip to turn over and fasten to the bottom. I don't think of anything more.

34. Q. State whether or not you had a conversation with M'r Rice on the subject at other times; and, if so, when, and what he said to you.

(Objected to.)

A. I don't recollect of having much conversation with M'r Rice in particular until about 1855. In 1855 he had shown me, by a rough wooden machine, the way he was going to make paper bags, and he had partially finished the machine so that he could make a bag; that was about all I know about it. I recollect one thing that was said that day by his father. His father said he thought he had got a good thing, and he thought he should help him through with it.

35. Q. Can you describe the machine which he showed you at that time, or the way in which he made bags upon it?

153 A. D n't know as I could describe the machine. It wasn't a machine; it was nothing more than a long former, with the paper drawn on and pasted in the centre, and cut off at different lengths with the bevelled end. He merely showed me the principle of his invention by this straight piece of board.

36. Q. How came you to see what he was doing at that time?

(Objected to.)

A. It was to explain to me what he had said in July, 1853; that was all. I had no interest in it.

37. Q. What time in the year was it you saw this?

A. I think it was in April; I think it was fast-day, but am not positive.

(M'r Howlett makes the same objection to the interrogatory as he made to cross-interrogatory eighth.)

A. Well, I don't know; I can't recollect; it is so long ago that I can't recollect it.

X 13. Q. Did you testify in any case in reference to paper-bag machinery since the date of your deposition above given, before to-day?

A. No, sir; not to my recollection.

154 X 14. Q. How long is it since you were advised that your testimony would be required in this cause?

A. It is about twenty-four hours; M'r Smith called on me last night, and told me I should be wanted to-day.

15. Q. Did you actually see paper bags cut off in the Rice experimental machine in 1854 or 1855; if so, how was that portion of the tube held which was in advance of the face of the former, and how was the knife operated?

A. In 1854, I don't know as I could tell how that portion of the tube which was in advance of the former was held; couldn't say whether it

was by a compressed roll or what it was; the knife was operated, or the piece of a wood-saw was operated, by hand, cutting down by bevelled former.

X 16. Q. Was the wheel or pulley exhibited in the model "Rice Experimental Machine" in the former-bar upon the Rice experimental
155 machine which you say was exhibited by M'r Rice in 1854?

A. I cannot say certain in regard to that; but I think it was drawn on by a crank motion—the paper.

X 17. Q. If you are uncertain as to whether a pulley such as shown in the model was or not in the Rice experimental machine, why did you put that pulley into the model?

A. The drawing on of the paper was either done by hand and a compress roll here for the purpose of bringing it together so as to cut it off; I think that is correct, so far as I can recall it.

X 18. Q. Question repeated.

A. Well, this pulley was put in in order to force the paper through, so that if it was done by a pulley, so as to close the paper down and to hold it to the former, so that they could cut it off by the bevelled part.

X 19. Q. Who assisted you to make the model, and who suggested to you to put in that pulley? And in this connection counsel would
156 request that if the counsel of complainant desires to object to the question, that he shall write out his objection and not speak it in the presence of the witness; counsel further requests that the examiner note whether this suggestion be complied with.

(Counsel for complainants objects for the reason that the witness has already stated that there was a roll either above or below the one in the former, which acted in combination with it to carry the paper forward.

Complainants' objection made in the presence and hearing of witness.—Examine'.)

A. This model I had made, and give the directions myself, as near as I can recollect, the former experimental machine.

X 20. Q. When did you first see a paper bag having the lips at each end for folding the top and pasting bottom?

A. In 1854, April, the time I saw his experimental machine.

157 X 21. Q. Had you not before that time seen hand-made bags having the lips referred to?

A. Never; not to my knowledge.

X 22. Q. Did the Rice experimental machine have any devices upon it that would in fact paste the centre of the tube continuously? If so, describe those devices.

A. Well, I cannot say for a certainty as to that, but it appears to me it had a paste-dish of some description for that underneath.

X 23. Q. Do you say that it had pasting devices that could be practically operated for the purpose of making a continuous tube, or do you mean that it had devices in particular positions for the purpose of showing the location of such pasting devices?

A. I don't say that he had them on, but it appears to me that he had.

X 24. Q. When did you first see a complete Rice machine?

A. In '55, I think.

X 25. Q. Was it operated by power?

A. It was operated by power, I think.

158 X 26. Q. What time in '55?

A. Couldn't say; I don't recollect the date.

X 27. Q. What size was the machine, where did you see it, and did you see it in operation?

(Objected to by M'r Howlett, for the reason that the witness has stated that he was not a machinist, and for that reason would not be competent to describe the machine, its dimensions and proportions.

A. Couldn't tell the size of it. I think it was at Deacon Parker's machine-shop, in Clinton, that I saw it. It was then in operation.

X 28. Q. How long did you watch it?

A. Well, that's a thing I couldn't tell you. It might have been five minutes, or it might have been an hour or two hours.

X 29. Q. How do you know that the machine so in operation in '55 at Deacon Parker's was a Rice machine? Would you now recognize that machine if it were shown to you? Do you not say it was a Rice machine simply because you were told so?

159 A. Well, I know it by what the man told me himself—M'r B. F. Rice—and furthermore, it was the same principle as the experimental machine. I think I should recognize the machine if it were shown me. I do not say it was a Rice machine simply because I was told so.

X 30. Q. Can you describe the devices now that operated the cutting-knife, or could you describe the end-pasting mechanism?

(Objected to by M'r Howlett, for the reason that the witness has previously testified he is not a machinist, does not understand drawings, which fact would not enable him to describe the machine.)

A. No; I could not.

X 31. Q. Did the knife revolve, or reciprocate?

(Same objection as before.)

A. Well, I can tell you as near as I can recollect. The knife went back and forth; did not revolve—I think not.

X 32. Q. You are quite positive that it was on the fourth of July, 1853, are you not, that M'r B. F. Rice first described to you the forming of bags with lips?

160 A. Yes, I am; with pasting the bag in the centre and putting it on a former in the shape of a tube.

X 33. Q. Where was the model "Exhibit Rice, Experimental Machine" made? State the shop, the maker, and the name of every person that was present while it was being made.

(Question is objected to, and the witness is instructed by counsel for complainants that witness need not answer the question.)

Counsel for defendants insists upon an answer to the question.

A. I shall answer the question. It was made on Cypress street, Worcester, Massachusetts. I can't give you the number or the maker's name; it has slipped my mind. I couldn't tell you who was there while it was being made. I was there only a few minutes to give the dimensions and the shape I wanted it put into.

X 34. Q. Can you state the name of any person other than the complainants' counsel who was present while it was being made?

161 (Objected to by M'r Howlett, for the reason that it misrepresents the witness, as he has not stated that the complainants' counsel was present.)

A. I do not.

1st redirect interrogatory by M'r Howlett. Was or not the real object of the bevelled edge on the former to make the blank of the form for the bottom lap and top lip like "Exhibit Houghton, Bag, No. 1," now shown you?

(Objected to by M'r Moore as leading.)

A. It was.

STILLMAN HOUGHTON.

Subscribed and sworn to before me this sixteenth day of September, A. D. 1872.

J. HENRY HILL,
Special Examiner.

And EDWIN N. RICE, a witness produced on behalf of the complainants, being first duly sworn, deposes and says, in answer to the following interrogatories propounded to him by complainants' counsel, as follows:

By M'r Howlett:

1. Q. What is your name, age, place of residence, and occupation?

162 A. My name is Edwin N. Rice; my residence is Clinton, Massachusetts; my age is thirty-five years; and am treasurer and collector of the town, and boot and shoe dealer by occupation.

2. Q. Where did you reside during the years 1853, '4, '5?

A. Clinton, Massachusetts.

3. Q. Are you a brother of B. F. Rice, and did he live in Clinton, Massachusetts, during those years?

A. I am a brother of B. F. Rice; he lived in Clinton, Massachusetts, during those years.

4. Q. Did you know of his experimenting on paper-bag machines during those years?

A. I did, in 1854 and in 1855.

5. Q. Did you see him in 1854 experimenting upon a model of or rough experimental machine? And, if so, please state, as near as you can, the first time you ever saw such model or machine.

A. I saw and assisted my brother in working a rough machine in 1854. I can't say whether it was in April, May, or June.

6. Q. Will you please examine "Exhibit Rice, Experimental

163 Machine," now shown you, and state wherein the machine which you assisted your brother upon, at the time mentioned in your last answer, differed from, or agreed with, the same?

A. I see nothing about this which corresponds with anything which I recollect about that machine, except that this bevelled end corresponds to a bevel on a board which he uses. This board, if I recollect right, was from six to ten feet long; and, at this time, which I remember particularly about, he had on this board, which laid on top of it, a roll of common wall-paper, the end of it running along over this board, and I assisted him in working the machine while he worked this paper. And I remember as the paper passed into the machine it seemed to tear—did not cut off well—and he left the end of the paper and came near where I was standing, and he sat down and looked at the machine some time; it seemed like a long time to me; it might have been ten minutes

164 and might have been half an hour; I couldn't recollect as to that. All at once he rose from the machine and took down from the wall part of an old blade of a wood-saw—and I don't know how long he worked on that, on the old saw-blade; some little time—and put it into the machine. He then worked over the machine some little time, and then started the paper in again, and we worked the machine till nearly the whole roll—I think quite the whole roll—was cut up. While working, sometimes half a dozen bags, I should think, would come through without tearing or stopping. My brother seemed very much pleased, and told me I mustn't say anything about it. That's all.

7. Q. Will you please examine "Exhibit Houghton, Bag No. 1," a blank, and "Exhibit Haughton, Bag No. 2," a finished bag, and state how they

compare with the blanks made by your brother on that machine, as testified by you in your answer to the last interrogatory?

A. They are substantially the same.

165 8. Q. These blanks were pasted by hand, were they not?

A. They were.

9. Q. Was there or not on that experimental machine which you have referred to a paste-pan containing a revolving wheel, and also a roll, either above or below the roll in the former, which was turned by a crank to propel the paper forward to the end of the former?

(Objected to by respondents' counsel as leading.)

A. I can't recollect about that. I think there was, from my recollection of the roll above this board; that's my impression.

10. Did he at that time say anything to you upon the subject of preventing waste in the manufacture of bags?

A. I don't recollect that he did.

11. Q. Was your brother, B. F. Rice, to your knowledge, engaged in carrying out this idea or invention of his, and did he continue his experiment until he had succeeded in producing a full-sized working machine?

A. He did carry out his idea, and, indeed, that very machine

166 made a perfect bag, without waste. Perhaps I might add, without pasting. I don't recollect that they were pasted at that time.

12. Q. What was the object in making the end of the former a bevel, as shown on the model "Rice's Experimental Machine?"

A. I was to cut the paper without waste, so that there might be a lip to paste down at the end of the bag.

13. Q. Do you remember of any one being present when you and your brother were working upon that experimental machine, previous to the time you have mentioned in your testimony?

A. I do not.

14. Q. Are you a mechanic, and competent to describe drawings and machinery?

A. I am not a mechanic, and not competent to describe drawings and machinery.

15. Q. Do you ever remember being present when your brother cut blanks of the form of "Haughton, Bag No. 1," when he used a straight knife or other instrument held in his hand?

167 A. I do not.

16. Q. How did he sever the bag before using the piece of a saw, as you have mentioned?

A. I couldn't tell you.

At this point the further taking of testimony was continued to the seventeenth and next day of the same September, at the same place, at nine and half o'clock in the forenoon.

J. HENRY HILL,
Special Examiner.

And now, on this seventeenth day of September aforesaid, at the place and hour aforesaid, the further taking of testimony was resumed.

By M'r Howlett:

17. Q. Do you recollect at this time of your brother, B. F. Rice, having an experimental machine in the winter of '53–'4; I mean December, '53, and January and February, '54; and could he not possibly have had such a machine and you not know the fact?

(Question objected to as leading.)

A. I have no recollection of seeing one. He could have had such

168 a one and I not know it, from the fact that during the winter I worked in the village in a store, and only came home Sunday, and I noticed on Sunday that the shop was locked, which was something unusual, and there might have been a machine in the shop and I not know anything about it.

And in answer to cross-interrogatories propounded to him by James Moore, esq., counsel for respondent, as follows:

By M'r Moore:

X 1. Q. Was your home with your father; whether B. F. Rice made his home at the same place?

A. Part of the time I was with them, and part of the time I boarded with my employer in the same town. When I was not boarding with my employer I was with my father and mother. I couldn't state whether B. F. Rice made his home with father and mother all the time or not. He lived in one part of my father's house after he was married, but whether it was in those years I am unable to say.

X 2. Q. State what portion of each of those years, severally, your brother, B. F. Rice, and yourself had your homes together; that
169 is, when you met morning and evening?

A. I couldn't state.

X 3. Q. How are you enabled to say that it was in April, May, or June, '54, when he experimented upon the rough machine referred to in your deposition?

A. I know it was in the spring of 1824, from the fact that, in the summer of '53, after I was sixteen years old, I was boarding with my employer, but I helped my brother on the machine the next spring, soon after warm weather commenced.

X 4. Q. Was your brother married at the time you assisted him upon that rough machine?

A. I cannot positively state, but my impression is that he was not married.

X 5. Q. How, and by whom, were you employed during the year '54 and the year '55?

A. I was employed in the grocery store a part, if not all, of the year
1854 for James F. Maynard, with the exception of a few days
170 which I had to myself; I can't, however, state positively but what I went to school a small portion of that year. In '55 I don't recollect whether I was at school all the year, or working part of the year.

X 6. Q. What part of the year '54, that is, what season, and whether early or late in the year, did you go to school? And you will also please give us the same information in relation to the year '55.

A. It is so long ago it is impossible for me to say; can't recollect from memory what portion of the year it was; that is true of both years.

X 7. Q. For whom did you work in 1855?

(Objected to, as the witness has not stated he worked for any one.)

A. I can't state whether I was at work or at school.

X 8. Q. Were you at work or at school at the time you assisted your brother on the rough experiment or machine, as referred to in your answers to interrogatories 5th and 6th, direct?

A. I can't positively say. It is my impression, however, that I was not at work at the time.

171 X 9. Q. Describe, if you please, and give us the name and office of, and the mode of attachment to each other, of each and every

part or device used in this rough machine or experiment referred to by you.

(Objected to by M'r Howlett, for the reason that the witness has already stated that he is not a mechanic and not able to describe machinery.

Counsel for respondents desire to say to counsel as well as witness that is only required in the above question that witness should state his best recollection of the matters therein referred to.)

A. I am not familiar with machinery, and am unable to give them.

X 10. Q. How were the tubes cut off before the piece of saw was used, as referred to by you; was it by a pocket-knife, a table-knife, a pair of scissors, or by a reaping-machine?

A. I have no recollection of seeing any pocket-knife, table-knife, or reaper. It is my impression that he took something out of the machine where he put the piece of the saw in, but I couldn't swear positively;

172 'tis so long since, 'tis difficult for me to remember.

X 11. Q. If you are correctly understood, all you mean to say is this, is it not, that your brother had some device or devices; that upon those devices you assisted him in folding a piece of wall-paper into a tube around a flat board or former, and that by means of an old saw or saw-blade, arranged in some manner that you do not now recollect of, this tube was, in connection with the straight board or former, cut by said knife or saw-blade into smaller tubes, but not pasted in any direction by any portion of said machinery? If this be not a full and a fair statement, you will please add to or correct it wherever it is mistaken.

A. I was to be understood that I assisted my brother in working a bag-machine in the spring of 1854, from which we made perfect bags, with the exception of pasting, cutting them from a tubed-shaped paper, with a lip for pasting at the bottom, without waste, the paper in the tube being cut in a bevelling form by means of an old saw-blade attached and working in the machine.

173 X 12. Q. By what means was the paper drawn lengthwise upon the board or former towards the place where it was to be cut off, and how was that portion of the tube to be cut off held rigid for the knife to act upon, if it was so held?

A. I think there was a roller on the top of the board or former by which I suppose it was drawn in. I don't know what means were had for holding it firmer.

X 13. Q. Would you call a piece of paper formed into the shape of a bag, but unpasted, a bag or a tube?

(Objected to as making the witness an expert, he having stated that he is not a mechanic.)

A. If it was a perfect-cut bag, I should call it an unfinished bag.

X 14. Q. How long after this was it, if you know, that your brother had a machine so far completed that it would make bags entirely from a continuous roll of paper?

A. This very machine would make a perfect bag from a continu-

174 ous roll of paper at the time I assisted him on it, with the exception of pasting; and there might have been a pasting-apparatus attached to it and I not have known it.

X 15. Q. (The last question repeated.)

A. I don't know whether he had one that day or five years thence.

Redirect interrogatory by M'r Howlett: Where did you first know of your being wanted to testify in this case yesterday and to-day?

A. Yesterday noon I arrived in Clinton on the train from Nashua, N. H., and as I stepped from the car on the depot platform M'r John A. Smith

came to my side and said, "Step into the train and go to Worcester with me; you are wanted to testify." I had, however, a few days previous, received a letter from E. J. Howlett, of Philadelphia, that he expected to be in Worcester to take testimony in relation to bag-machinery, and that if he wanted me he would write or telegraph me, but I heard nothing from him till I met M'r Smith, as stated.

EDWIN N. RICE.

175 Subscribed and sworn to before me this seventh day of September, A. D. 1872.

J. HENRY HILL,
Special Examiner.

And GILMAN M. PALMER, a witness produced on behalf of complainants, being first duly sworn, deposes and says, in answer to the following interrogations propounded to him by E. J. Howlett, esq., counsel for complainants, as follows:

By M'r Howlett:

1. Q. What is your name, age, residence, and occupation?

A. My name is Gilman M. Palmer; my age is fifty-nine years; my residence is Clinton, Massachusetts, and I am an iron-founder by occupation.

2. Q. Where did you reside in the years 1853, '4, '5?

A. Clinton, Massachusetts.

3. Q. Did you know B. F. Rice, of Clinton, during those years?

A. Yes, sir.

4. Q. Did he, during those years, state to you a plan or mode of making paper bags? And, if so, please state what description he gave you of it, and the time, as near as you can.

176 A. Yes, sir. He said that he was trying to make a machine to make a bag by making one fold lengthwise over some kind of a former, and by cutting of it in some form to have something to close the bottom. That was all that was said about the form of the bag at that particular date. To the best of my recollection it was in the fall of '53.

5. Q. Did he, after this time, have any further conversation with you as to his progress on this paper-bag machine?

A. He did. It might have been a month, six weeks, or somewhere along there. He told me that he didn't find it a difficult matter to form the bag. I asked him what it was. He said he found it difficult to cut the paper without tearing it. The next conversation I had with him was early in the spring—the next spring. He told me that he had been trying to cut his paper after he had formed it for a bag; that his standing in his shop where he was at work on his machine, saw lying under the bench a piece of a broken saw. It occurred to him to take that

177 up and go to striking the paper with the saw, and found that he could cut it better with that than with any sharp knife that he had had before. He then took a piece of the saw, and sharpened the teeth, and said that he became satisfied that by taking something of that kind and applying of it to his machine, he should be able to cut his paper as he wanted to; that he done so, and that it was fully satisfactory.

6. Q. Was B. F. Rice, to your knowledge, engaged in carrying out this idea or invention of his, and did he continue his experiments until he had succeeded in producing a full-sized working machine?

(Objected to by M'r Moore as leading.)

A. He was. The machine was made, full size, at Parker and Palmer's shop in Clinton, under his direction, and a great many bags were made there.

7. Q. Are you the same Palmer referred to in your last answer?

A. I am.

8. Q. Was not M'r B. F. Rice considered a good mechanic, an ingenious man, and an original inventor?

(Objected to by M'r Moore as leading.)

178 A. That was so talked and so considered by the people at Clinton, among those who knew him.

9. Q. Did you know E. W. Goodale, and did he reside at Clinton in the years 1853, '4, '5?

A. I did. I think he resided at Clinton during those years. I have not any doubt of it.

10. Q. How, in your opinion, did M'r E. W. Goodale compare with M'r B. F. Rice as an original inventor?

(Objected to by M'r Moore as incompetent and immaterial.)

A. From what I know of the two men, I should say M'r Rice was far superior to M'r Goodale as an inventor.

11. Q. What was M'r B. F. Rice's financial condition during those years; and was he not considered a poor man, living upon his weekly wages?

(Objected to by M'r Moore as leading, and for the further reason that before the leading clause was added to the question, the witness had already answered, denying knowledge of the subject-matter of the question.)

179 A. I am not able to say. He never told me. I never heard it considered that he was a rich man.

12. Q. Is M'r B. F. Rice now living?

A. Not to my knowledge.

13. Q. Are you a mechanic and capable of explaining machinery and drawings?

A. I am a mechanic, but am not capable of explaining machinery and drawings.

And in answer to cross-interrogations propounded to him by James Moore, esq., counsel for respondents, as follows:

By M'r Moore:

X 1. Q. Am I to understand that you are a mechanic and not capable of explaining machinery and drawings?

A. I am an iron-founder.

X 2. Q. Then, if I were to show you a copy of the patent granted for the invention of B. F. Rice for improvement in paper-bag machinery, am I to understand that you would not be able to understand the machine therein shown and described?

(Objected to for the reason that the witness has stated that he was an iron-founder and not able to describe drawings.)

180 A. I don't think I should, and don't know but I might, having seen the machine.

X 3. Q. Examine these drawings of patent now shown to you, "Respondents' Exhibit, Patent No. 12," and state whether or not you find there the Rice machine or any part of it.

(Counsel for complainants objects to the reference to this exhibit, as there are two exhibits No. 12; one E. W. Goodale, rejected patent, and that one granted to Charles Morgan for improvements on the Rice machine; unless respondents' counsel states which one he wishes to refer

to, and for the further reason that the witness has testified that he is not competent to describe drawings.)

A. Couldn't tell by drawings whether there was or not.

X 4. Q. Did you ever see a completed operating machine of the character or kind known as the Rice machine; if so, when and where did you first see such a machine?

A. I saw one; I saw it at Parker and Palmer's shop, at Clinton. According to the best of my recollection it was in '56; it might have
181 been in '57. I have no means here of telling exactly; I could get at it by going to the books.

X 5. Q. This was the first operative Rice machine built, was it not?

A. Couldn't say, sir; don't know; might have been.

X 6. Q. You would not know that machine if you saw it now, would you?

A. I think I might recognize it.

X 7. Q. You only know of the construction of the experimental machine spoken of by what M'r Rice told you, do you?

A. That's all.

G. M. PALMER.

Subscribed and sworn to before me this seventeenth day of September, A. D. 1872.

J. HENRY HILL,
Special Examiner.

Southern district of Ohio.

THE UNION PAPER-BAG MACHINE COMPANY et al. *vs.* MORRIS H. NIXON ET AL. } 1481.

182 SAME *vs.* SAME. } 1483.

SAME *vs.* THOMAS NIXON. } 1526.

SAME *vs.* THOMAS NIXON. } 1527.

And CHARLES H. MORGAN, a witness produced on behalf of complainants, being first duly sworn, deposes and says, in answer to the following interrogations propounded to him by E. J. Howlett, esq., counsel for respondents, as follows:

By M'r Howlett:

1. Q. What is your name, age, residence, and occupation?

A. My name is Charles H. Morgan; my age is forty-one years; I reside in Worcester, Massachusetts; and my occupation, mechanic.

2. Q. Where did you reside in in 1853, 1854, and 1855?

A. I resided in the city of Lawrence, Massachusetts, in the
183 year 1853, and until late in the fall of 1853. I think I left there in November. In 1855, early in 1855, I was in Worcester, Massa-

chusetts, although it was not my home. I was employed in putting up the steam-engine of William F. Mansfield. My family were temporarily living in Shrewsbury, Mass., from March; the remainder of 1855, I considered Clinton my home; my family was there, but I was there only occasionally.

3 Q. Are you the same Charles H. Morgan who was one of the assignees of B. F. Rice, of patent granted April 28th. 1857?

A. Yes, sir.

4. Q. What circumstances led you to purchase an interest in M'r Rice's patent?

(Objected to by M'r Moore as immaterial.)

A. From the fact that I was employed by Edward W. Goodale and John A. Smith to make drawings for their machine, and because familiar or was familiar with the bag-machine of B. F. Rice as patented in 1857, thus having an opportunity to compare the merits of the invention.

5. Q. When did you first see a paper-bag machine constructed
184 by B. F. Rice, or embodying this mode of operation? and please state its construction and mode of operation as you saw it at that time.

(Objected to by M'r Moore for indefiniteness, and inasmuch as it does not appear from the question whether the machine referred to had the same mode of operation as the machine described in the patent of 1857.)

A. I first saw it in the spring of 1855. The machine was constructed to receive a roll of paper at one end, of a width equal to twice the width of the required bag, plus the lap. The machine was constructed to gradually form the paper into a partially-flattened tube around a flat bar, termed or named a former. The machine was constructed to paste one edge of the paper and to press the other edge upon it. The machine was constructed with a feeding-device with an intermittant portion to project portions of flattened tube equal to the length of the paper bag required, plus the bottom lap. The machine was constructed with
185 device for seizing the end of the projected portion and holding the same while being severed by a blade passing obliquely across the flattened tube. The machine was constructed with devices for pasting and folding the bottom lap of the bag.

6. Q. What was the shape of the end of the former where the bag was cut?

A. The edges of the former were V-shaped or angular; the end was cut under at an angle of about forty-five degrees.

7. Q. Were bags made upon this machine at the time you speak of? If so, state how they compared with or differ from the "Houghton bags, No. 2," now shown you.

A. Not when I first saw it. They had no paper suitable at the time. Subsequently I saw the bags like bag exhibited to me made from rolls of hanging or wall paper of like construction.

8. Q. Did you not subsequently construct other machines, in accordance with or under the Rice patent, to manufacture bags, which were sold in the market, substantially like "Exhibit Houghton, Bag No. 2?"

A. I did construct machines in accordance with the Rice patent,
186 and the bag exhibited was made on one of the machines, and like bags were sold in the market.

9. Q. Did or not the cutting-device on the Rice machines severe the tube from its own gravity—I mean the first Rice machine?

A. I cannot be sure. There was not a weight or a spring to *omit* it.

10. Q. Would you consider a weight or spring great inventive genious?

(Objected to by M'r Moore as incompetent and immaterial.)

A. I shouldn't consider the addition of a weight or spring any proof of inventive genius.

11. Q. Are they not devices commonly known to any mechanic?

(Objected to as before.)

A. They are.

12. Q. What were M'r B. F. Rice's pecuniary abilities in 1855 and two years previous, if you know?

A. I can only say that whenever I met him he professed to be poor and not able to carry on his invention.

13. Q. Was not M'r B. F. Rice considered a good mechanic, an ingenious man, and an original inventor?

(Objected to by M'r Moore as immaterial and irrelevant.)

Ans. He was.

187 14. Q. In this respect how did E. W. Goodale compare with him as an inventor?

(Objected to as before.)

A. In my judgment, he had less originality.

15. Q. In a deposition which you made in a suit—Union Paper-Bag Machine Company vs. Martin Nixon—I find you testified that "the machine, or, rather, a portion of the machine, which had been operated by M'r Martin Nixon and his business associates had been constructed by him, and then not in accordance to my patent wholly, but embracing all the improvements contained in my patent, combined with other devices not invented by me, and constructed without my permission or authority, and under protest made by me while being constructed." What devices had you in mind as being in said machines and which were not of your invention?

(Objected to as immaterial, irrelevant, and incompetent.)

188 A. I had certain devices in mind claimed as the invention of a certain S. E. Pettee, one for creasing the paper in the direction of its length, and another for applying paste to the bottom of the pasting device.

16. Q. Were you ever invited to see the Armstrong and Pettee machine, in Third street, Philadelphia, after M'r Pettee made his improvements on the Armstrong machine, and did you not invite Armstrong and Pettee, (and if any others, please state who,) after seeing said machine or machines, to see your machines; and did they not all at that time paste the paper on the under side? I mean your machines.

A. I was invited and inspected the machine in company with Leonard Whitney, j'r, at which time I extended invitation to Pettee and Armstrong to inspect machines constructed in accordance with the Rice patent, and machines constructed in accordance with patent granted to myself. Both machines constructed under the Rice patent and my own pasted the paper on the under side at that time.

And in answer to cross-interrogations propounded to him by James Moore, esq., counsel for respondents, as follows:

189 X 1. Q. How much did B. F. Rice receive for the invention shown in the patent granted to him April 28th, 1857?

A. He received from me fifty dollars for one-half interest in the same.

X 2. Q. What did he receive for the remaining one-half interest; and who were the assignees of the other half interest?

A. I do not know. Benjamin R. Smith was the assignee of the other half interest, of Clinton, at that time.

X 3. Q. State whether or not B. F. Rice, B. R. Smith, or any other person told you then or at any other subsequent time how much Rice

received or was to receive for the other half interest; and state who told you when you were so told.

(Objected to for the reason that the witness had stated that he did not know the amount; and as to what others may have said, it is not proper evidence.)

A. I never knew anything of the nature or amount of consideration given to B. F. Rice by B. R. Smith.

190 X 4. Q. What, if any, changes were made in the devices or modes of operation between the time when the machine was first exhibited to you, in the spring of '55, and the time that Rice filed his caveat? And please further state what, if any, differences exist between the machine that you saw in 1855, as aforesaid, and that shown in "Exhibit Patent, No. 10," now shown you.

A. The devices were somewhat modified, but the mode of operation was the same. The first difference that I notice is a device for applying paste to the edge of the paper in forming the tube; the next modification is in the folding device, which in the original machine was like the device shown in the caveat, with a portion of one of the feeding-rolls cut away to make the feeding intermittant, a device being substituted in the model sent to the Patent-Office to produce a variable intermittant motion; also, devices were added for making bags of different lengths upon the same machine.

X 5. Q. State specifically every device shown in patent No. 10 that was invented or suggested by yourself.

191 A. I suggested the modification of the feeding device and the modifications necessary for making different lengths of bags upon the same machines. That's all I am sure of.

X 6. Q. The change in the feeding device necessitated a change in the operation and position of the knife, did it not? If so, describe the change that was made in this respect.

A. It did not require a change, and no change was made in the position or operation of the cutting blade on that account.

X 7. Q. When did you first see bags made, that is, completed—sides and edges pasted—on a Rice machine, and where was that machine?

A. I first saw bags said to have been made on the Rice machine in the spring of 1855. I first saw them being made on a Rice machine about the first of August, 1855; it was in a shop owned by B. F. Rice's father.

X 8. Q. Those bags which you saw in the spring of 1855, did they have the sides and bottoms pasted? State who exhibited them

192 to you, whether you were then informed that they had been so pasted upon the Rice machine, and who so informed you.

A. The bags were pasted complete, but I am not certain that the pasting was done upon the machine, or what I was informed in that respect.

X 9. Q. Did the Rice machine, which you say was exhibited to you in the spring of 1855, have devices upon it for pasting sides and bottom; and where was that machine situated when you saw it in the spring of 1855?

A. The machine did have devices upon it for pasting sides and bottom. It was situated in the shop aforesaid belonging to B. F. Rice's father.

X 10. Q. Describe those pasting devices with reference to those shown in "Exhibit, Patent No. 10."

A. The pasting devices upon the machine referred to were blades attached to arms upon shafts or axis, that they might have a rotating or oscillating motion, receiving paste from a fountain or vat, and transferring it to the paper to paste the laps; whereas, in the patent

193 marked "Exhibit No. 10" the device for pasting the side lap was a thin disc rotating intermittently in a vat of paste, applying the same to the paper to form the side lap. The device for pasting the bottom was the same in the machine as in the "Exhibit, Patent No. 10."

X 11. Q. Counsel desires the witness to be a little more explicit in his description of the side paster first used, or in the machine which he saw in the spring of 1855.

A. The blade aforesaid was arranged parallel with the bar called the tube-former, and at a length equal to the length of the bag to be produced, the paste being applied to the paper during the intermission in the feeding the paper.

X 12. Q. Was the bar r^2 shown in patent No. 10 upon the machine which you saw in the spring of 1855, at B. F. Rice's father's shop?

A. It was.

X 13. Q. It is a fact, is it not, that merchantable bags were not made upon a Rice machine, or, at least, not to your knowledge, until after the changes referred to had been made?

A. Yes, sir.

194 X 14. Q. State whether or not any other person than yourself changed any of the devices, as shown in the machine that you saw in 1855, in the spring, to devices shown in patent No. 10, or whether any such changes were made at the suggestion of any other person; if so, point out any such change or additions.

A. There were no other changes suggested or made, to my knowledge.

X 15. Q. Have you any knowledge as to when bags were first made upon the envelope-machine of E. W. Goodale?

A. I have not.

X 16. Q. State whether or not, before the time that you saw the Rice machine first, in the spring of 1855, you had knowledge of the manufacture of paper bags by hand, cut from a tube, long or short, such bags have top and bottom laps.

A. I have no such knowledge.

X 17. Q. Did you ever see a Rice machine in practical operation for the purpose of manufacturing paper bags for sale, where the cutting-knife fell by gravity?

A. Yes, sir.

X 18. Q. The gravity of the knife alone, or the weight of the knife alone?

195 A. No, sir.

X 19. Q. Was it the same machine that you saw in the spring of 1855, and in August, 1855?

A. Yes, sir.

X 20. Q. State, if you know, whether this was the first machine built by or for Rice containing his invention, and state further where it was built, if you know.

A. I do not know whether it was the first machine, as I resided out of town most of the time for two years prior to the spring of 1855.

X 21. Q. State what subsequently became of this machine; was it assigned with the invention to B. R. Smith and yourself, and where is it now, if you know?

A. It was assigned with the drawings to B. R. Smith and myself. The greater part of the machine found its way to a scrap heap shortly after the construction of the new machine, some time about the latter part of 1856.

X 22. Q. When was the first machine built, that is, the one of which

you say the greater part went into a scrap pile; and the machine
196 which you call the new machine, which was built about the time the other was broken up, where was it built?

A. I don't know of my own knowledge where the first machine was built; the machine referred to as the new machine was built at the shop of J. P. Parker & Co., said Parker known as Deacon Parker; the partners of the firm was said Parker and G. W. Palmer.

Redirect:

1. Q. In answer to 5th cross-interrogatory you say, "I suggested the modification of the folding device;" did you mean to be understood that you was the inventor of the train-gears which produce the intermittant motion in the Rice machine?

A. I do not mean to say that, for a similar train of gears *and* described in a volume called Willis' Principles of Mechanism. I called Rice's attention to this volume, whereupon he constructed a train of gears in accordance with the instructions contained in said volume; he found by experiment that it would not give the required motion, but discovered in his experiments that a change in the proportion and arrangement
197 of the gears would give the required motion.

2. Q. In your opinion, a mechanic construct a working-machine capable of making paper bags from the specification and drawings, "Respondents' Exhibit, Rice, Reissue, 920"?

(Objected to as improper upon a re-examination.)

A. My opinion is that he could produce a machine that would make bags like "Exhibit Houghton, Bag, No. 2."

3. Q. Did Mr. Goodale say anything to you at the time you made drawings for him in regard to making a bag once the length of the bag on the envelope-machine, and did he give you any idea of the form, or say he had produced a form of making bags without waste?

(Objected to as before.)

A. I do not remember any conversation upon that subject with Mr. Goodale.

(Counsel for respondents desires to say that while he desires to save the objections immediately above taken, and more particularly for the reasons that he is under notice to be in Philadelphia to attend an
198 examination by complainants at such time that consistent with the trains running from here there, it is impossible for him now to cross-examine the witness upon the point drawn out; nevertheless, proceeds to ask one question, as there is time for that left yet.

Counsel for complainants desires to place upon the record that he gave notice to respondents for taking testimony in Philadelphia, on Thursday, the 19th, at ten o'clock, not wishing to have it interfere with the session here, which he did not suppose would close before to-morrow evening, that leaving two trains from here which would take us to Philadelphia for the engagement.)

X 23. Q. You will please state the number of cams that you find set down in said machine at the head of the machine above the drawing-rolls and give their letters by which they are marked severally, and state which of these cams is operated by the different sets of rock-levers and link-joints respectively; and state further what action or immediately operative devices of the machine shown in the drawings
199 is operated by these cams with their several rock-levers and connecting links, and state where such of those connecting links and cams are shown in the drawings.

(Counsel for complainants instructs the witness that he need not consume his time or the time of complainants' counsel by being made an expert of by respondents' counsel unless he is willing to pay him for his time.

A. The question is too complex to give an answer without spending some hours upon the drawings and specifications.

CHA'S H. MORGAN.

Subscribed and sworn to before me this seventeenth day of September, A. D. 1872.

J. HENRY HILL,
Special Examiner.

COMMONWEALTH OF MASSACHUSETTS,
County of Worcester, ss:

I, J. Henry Hill, special examiner under the 67th rule in equity as amended, do certify that on said sixteenth and seventeenth days of September, in the year of our Lord one thousand eight hundred
200 and seventy-two, I was attended at my office, No. 344 Main street, (Brenley Hall,) Worcester, Mass., by the counsel and witnesses aforesaid; that the said witnesses were severally duly sworn and examined, and the foregoing depositions were reduced to writing and read to the said witnesses, and by them severally subscribed in my presence, in accordance with the notice hereto annexed.

J. HENRY HILL,
Special Examiner.

U. S. circuit court, E. dist. of Mo. Equity.

U. P. BAG MACHINE CO. & ALS.
vs.
MERRICK MURPHY & ALS.

It is hereby stipulated that the annexed are true copies of the testimony of John A. Smith, J. Houghton, G. W. Palmer, and C. H. Morgan, referred to in the copy of stipulation hereto annexed.

SAM'L S. BOYD,
Def'ts' Sol'r.
KRUM AND PATRICK,
Sol. for Compl't.

201 The testimony so stipulated by the parties to be offered and read in evidence by respondents is as follows, to wit:

United States circuit court, southern district of Ohio. In equity.

UNION PAPER-BAG MACHINE COMPANY, WILLIAM H. CHATFIELD, AND WILLIAM WOODS,
vs.
MORRIS H. NIXON ET AL.
No. 1481.

Testimony taken in the above-entitled cause on behalf of respondents, in pursuance of the notice annexed to the deposition of Horation G. Armstrong, in cause 1483, pending in above-stated court, and taken before me this day, and taken at time and place therein mentioned.

Present on behalf of complainants, ; on behalf of respondents, James Moore.

At request of respondents, it is hereby ordered that the depositions be taken by question and answer.

E. MERCER SHREVE,
Special Examiner.

Trenton, New Jersey, December 20, 1871, No. 78 East State street.

202 HORATIO G. ARMSTRONG, a witness produced on the part of the said respondents, being duly sworn according to law, deposes as follows:

1. Q. What is your full name, age, residence, present occupation, and what has been your occupation for the past twenty years?

A. Horatio Gates Armstrong; fifty-eight years of age. I think my residence is number fifty-three West Front street, Trenton, New Jersey. The house I live in is not numbered same of the houses in the vicinity are numbered, and my house would be about 53. My present occupation is paper manufacturer. I have been engaged for the past twenty years in the paper trade, manufacturing paper, paper bags, and paper-bag machinery.

2. Q. State whether prior to the year 1856 you ever made paper bags from a tube of paper? If so, describe particularly how you formed the tube of paper, how you cut off the bags, how you pasted them, of what form were the ends of the bags when cut off, and state the time and place that this was done.

203 A. I did make paper bags from a tube of paper prior to 1856. I had first to make the tube of paper over a tin plate the width of the bag. The operation was too slow to be profitably practicable, and I quit making them because not profitable. I made the tubes as long as I could purchase paper bag in the market, but there being at that time no roll-paper in the market, I was limited to the length of a sheet of paper. My tin plate or former varied from 20 to 36 inches in length, and was the width of the desired bag. The tin plate was placed upon a number of sheets of paper of the proper width. One end of the tin former was fastened to a block attached to a table, to keep it firm while removing a former tube. Then I folded over the first sheet of paper, which was of the proper width to allow a margin for lapping or pasting surface, which was then pasted and the tube removed, and so on successively until all the sheets were made into tubes. Afterwards these tubes were cut in an ordinary cutting-press, and cut into the
204 form shown in the exhibit herewith offered and marked "Respondents' Exhibit C," whose sides are fastened together to preserve its exact form. Afterwards the tubes, such as Exhibit C, were each bent or shifted by hand into the former, as shown in respondents' Exhibit D, herewith offered in evidence and marked "Exhibit D on part of respondents," and with its sides fastened together, to preserve its exact form. The bags, such as Exhibit D, were then placed in a pile, with the end of each bag to be pasted placed a little in advance of the next succeeding bag, and paste placed upon the margin to be folded, and then turned or folded over and pressed down with the fingers. Thus the bag was finished. I made such bags, or these bags as described, near the corner of Callowhill and Sixth streets, Philadelphia, Pennsylvania. It was on the north side of Callowhill street, east of Sixth street. This was in the year 1853 or 1854. I suppose I made twenty thousand bags in this way, and sold them to grocers and others.

3. Q. Will you please state more definitely the time when these
205 twenty thousand paper bags were made; this is, as nearly as

possible when you commenced to make the bags described and when you ceased to make them?

A. I cannot answer more definitely than I have. I moved to Callowhill and Sixth streets in November, 1851. I was in the paper business at the time. I commenced making paper bags about a year afterwards; probably in November, 1852. I practiced the most expeditious way of making them, and I think my earliest specimens were like Exhibits C and D, herein referred to. When I commenced these bags like Exhibit C and D, I kept on right along until the number about twenty thousand were made. I was two or three weeks so employed.

4. Q. Were your operations during the time you were manufacturing the paper bags above referred to kept a secret, or intended to be kept a secret, from people generally, or from any person?

A. No, sir.

5. Q. Did you make these bags with your own hands, or did you employ others to make them? If you employed others, how many
206 were so employed?

A. I employed three boys. I showed them how to do it.

H. G. ARMSTRONG.

I, E. Mercer Shreve, special examiner, do hereby certify that Horatio G. Armstrong attended at my office, No. 78 East State street, Trenton, New Jersey, at the time mentioned in the notice annexed to the deposition of said Armstrong, in cause in said court No. 1483, and was by me first duly sworn to testify to the truth, the whole truth, and nothing but the truth; that the deposition was by me written in the presence of the witnesses, and by him signed in my presence; that I am not attorney or relative of either party, or in any manner interested in the event of this cause.

E. MERCER SHREVE,
Special Examiner.

DECEMBER 20TH, 1871.

Examiner's fees, $5, paid.

E. MERCER SHREVE,
Special Examiner.

UNITED STATES OF AMERICA,
Southern District of Ohio, ss:

207 I, John McLean, clerk of the circuit court of the United States within and for said district, hereby certify the foregoing deposition and exhibits to be true and correct copies of the original deposition and exhibits thereto attached, as the same remain on file in this office.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at Cincinnati, this 30th day of December, A. D. 1871, and in the 96th year of the Independence of the United States of America.

JOHN McLEAN, *Clerk.*

X 53. Q. Is there not waste in severing in many paper-bag machines; and is it not desirable for the profitable manufacture of paper bags that there should not be?

A. I don't know. I don't just understand the question exactly. I don't think there is; none that I know of. Yes, sir; it is not desirable for there to be any waste.

X 54. Q. Please state all the paper-bag machines that you have ever seen.

A. I have never seen any but the Rice and Morgan machines—
208 the machines at Richmond, Indiana.

CHARLES A. NIXON.

Subscribed in my presence and sworn to before me this 27th day of May, A. D. 1872.

RANKIN D. JONES,
Special Examiner, &c.

The respondents here offer in evidence model of machine used at Richmond, Indiana, marked "Respondents' Exhibit, Rice Machine."

12 O'CLOCK.

The further examination is here adjourned until 2 o'clock p. m.

RANKIN D. JONES,
Special Examiner, &c.

2 O'CLOCK P. M.

Met pursuant to adjournment.

RANKIN D. JONES,
Special Examiner, &c.

E. W. GOODALE, a witness produced on behalf of the respondents, being first duly sworn, deposeth and saith in answer to interrogatories to him propounded by James Moore, esq., of counsel for respondents, as follows:

1. Q. State your name, age, residence, and occupation.
209 A. E. W. Goodale; age, 53 years; residence, Clinton, Iowa; occupation, machinist.

2. Q. Are you the E. W. Goodale, patentee of letters-patent No. 13647, and dated October 9th, 1855, and letters-patent No. 12945, and dated May 29th, 1855, copies of which are herewith shown you, marked "Respondents' Exhibits 1 and 2"?

A. I am the same man.

3. Q. State, as nearly as you can, when the first machine was finished which was built in accordance with the drawings and specifications of Exhibit No. 2, if any was so built; also state when and *buy* by whom the same was built.

A. I think it was finished—it was about the 1st of August, 1854; it was built at Deacon Parker's shop in Clinton, Massachusetts, under his charge; I submitted the drawings and plans to him. I could not say who did the work, but it was done under his charge.

4. Q. When was your application made for a patent on the machine therein described? And if there was any material delay between
210 the finishing of said machine and the time of making your application for letters-patent, please explain the cause of that delay.

A. I think it was in March, 1855, that I carried the envelope model and bag-machine model to Munn & Co., New York, requesting them to make immediate application for the patents. After finding out his price, I was not able to meet his bills for both. I requested him to go on with the bag-machine, and took the envelope model home with me to Clinton, Massachusetts, being short of funds at that time, having used so much in experiments in bag-machines and other patents. I think it was the fourth of July that I returned it to him.

3.45 O'CLOCK P. M.

The further examination is here adjourned until Tuesday, May 28th, 1872, at 9 o'clock a. m.

RANKIN D. JONES,
Special Examiner, &c.

TUESDAY, *May 28th*, 1872—9 o'clock a. m.

Met pursuant to adjournment.

RANKIN D. JONES,
Special Examiner, &c.

211 5. Q. State when you first knew of a machine or model having been made for the purposes of making paper bags from a continuance tube, the said tube being made from a roll of paper on such model or machine. Where and by whom was any such model or machine made?

A. In the fall of 1853, before December, 1853. It was made in Clinton, Massachusetts, at my house, opposite the machine-shop of Clinton Company, on Main street, by myself. It was a model.

6. Q. If you have the said model or a copy of it, in whole or in part, you will please produce the same and mark it "Respondents' Exhibit, Goodale, Model," and describe wherein the same agrees with or differs from the model made by you in 1853, a' Clinton, Massachusetts, aforesaid.

A. I herewith produce said model, and so mark it. The model is the same, that is, it represents the same in all respects, except the bag here represented is about one inch longer and about half an inch wider; and the dapper to turn the bottom lap has a slot in it. The original
212 was smoothe like the side laps.

7. Q. Please particularly describe the operation of the said model as it was made in 1853, and if it was intended to be incorporated into (in whole or in part) the machines shown and described in either of the aforesaid patents, or to be used in connection with any portion of the machinery shown in either of said patents, then you will please point out any devices that were to have been used in connection with said model.

A. The long continuous former shown in the model represents my plan at that time, (1853,) for the purpose of guiding paper from a roll and folding the sides over and upon with a seam on one side near the middle, lengthwise, for the purpose of making a paper bag. The operation that I have described was to be done at the same time that the bottom was to be pasted and cut off of a bag, previously formed. The part under the hinges represents the sides of the second bag now being folded upon the former. We now wish to form the bottom lap on the bag previously
213 folded; the same is represented as is now done; there now being on the former two bags, which I have marked "1" and "2," "1" being completely folded, "2" with the sides folded. It was not intended to be used in 1853 in connection with any other machine, not having any other perfected at that time.

8. Q. Please describe the mode in which it was intended, when the model was made in 1853, to paste the tube and the end lap of the bag and to cut off the bag.

A. It was all done by hand. The paster for the middle of the bag was a piece of iron from 3-16 to 1-4 an inch thick; the length of the bag to be pasted taken in the hand, dipped into the dish containing paste,

transferred from the dish to the proper place on the side lap; after one was folded over before the other, the paste to the end was to be applied in the same way. The finished bag was to be cut off before pasting "1" by a pair of strait shears or scissors, such as we used for cutting places for the side laps. The part of paper marked "3" was cut for the side laps, while "2" being folded and the bottom lap formed on one.

214 9. Q. You will please state whether the mode shown in the model for pasting the end lap was satisfactory; if not, why not, and what was the next step taken to remedy this defect.

A. It was not satisfactory, because it required the paste to be applied, as shown, upon both edges of the bottom lap. The next step was, I invented, or made, a pair of cutters, or shears, like "Respondents' Exhibit, Goodale, Shears," to cut the form, as shown in "Goodale Exhibit, 2." I cut this shape to overcome the difficulty found in Exhibit 1 in pasting the bottom lap to make a perfect bottom after being pasted, as shown in Exhibit 2.

10. Q. When did you make paper bags the form shown in "Goodale Exhibit, 2," and when did you paste it upon model like model "Goodale Exhibit?" State as nearly as you can.

A. Before September, 1854; some time in the summer of 1854.

11. Q. You will please state whether this mode of making bags from a roll of paper in a continuous tube was satisfactory in all particulars. If not, point out what defect was experienced in this mode and what means were taken to remedy it.

215

A. I did not readily see at that time how I could cut it off by power satisfactorily. I did arrange to cut it off by hand. Yes; there was a defect, or seemed to me to be, at that time, as the "Goodale Exhibit, 2" shows, the top projection of the end lay over the part I desired to cut.

12. Q. You please take a pen and draw a line across "Goodale Exhibit, 2," to point out the line upon which you desired to cut the paper.

A. I have done so.

13. Q. What was your purpose in desiring to cut the bag off at the line you have made?

A. At the time of operating the machine, in 1854, after folding the sides and pasting the bottom lap, and bringing the bag forward from the roll by hand to the right position to fold another bag upon the former, I cut them off with shears and scissors, in the proper place

216 for a bottom lap upon the next bag, by hand. I saw that I could make a bag without waste was my purpose in cutting the bag off at the line I have made.

14. Q. In such case would there or not have been a projection for folding the bottom lap and one for opening the bag at the mouth?

A. There would. I desire to correct my answer to question 10 by saying that I prefer saying before November or December, 1854.

15. Q. You will please now describe what was the next step taken to remedy defect described in reference to "Goodale Exhibit, 2."

A. I reversed the shears, (Goodale shears,) and cut out a piece, as shown in "Goodale Exhibit, 3," but did not abandon the idea of making the bag without waste in the form of "Goodale Exhibit, 2."

16. Q. At the time that you devised the form of cutting bags shown in "Goodale Exhibit, 2," had you invented any machinery intended to co-operate with mechanism shown in model "Goodale Exhibit,"

217 for the purpose of making a tube from a continuous roll, cutting off bags of a proper length from the tube, and folding and pasting their bottom? If yea, you will please describe particularly of what such additional machinery consisted, and if it be shown or de-

scribed in any letters-patent subsequently granted to you, you will please describe any such patent.

A. I had not at that time.

17. Q. Please describe more particularly the character of bag intended to be made by the mode shown in "Goodale Exhibit, 3."

A. It was to have a seam in the middle or on one side, and, when cut off from the continuous roll, before folding the bottom lap, each end of the bag have a projection; one for closing the end of the bag, the other for the convenience of opening; the bottom lap being folded over upon the same side of the bag; the peculiar shape of the bottom lap before folding was being cut of such shape or form that when the bottom of the bag folded it left the corners of the bag secure. This peculiar
218 form or shape of the cut left the bag, when folded, double at the bottom corners, which made a more perfect bottom than any bags, I think, that have ever been made.

18. Q. What time did you first make bags of the character described and shown in "Goodale Exhibit, 3," upon the model of machine which the model "Goodale Exhibit" is a representation?

A. In December, 1854, or January, 1855; before the 1st of February, 1855.

19. Q. What time did you add to the said model or machine the slotted end lapper shown in "Goodale Exhibit, 1?" and describe its mode of attachment to the machine and purpose.

A. It was about the time that the first bag-machine was patented, to wit, May 29th, 1855. It was just before or just after I received notice that it was granted I put a slot into the lapper which I had previously used. I put another new hinge; the end I had used before was not long enough. It was for the purpose of severing the bag previous to folding the bottom lap. There was a support underneath to
219 hold the bottom lapper on a level while the saw struck from the top side through the slot, severing the tube at the line marked, the former being raised to a level with the top of the hinge by a lifter operated from the under side, for the purpose of allowing the pincers to take the bag and remain in that position until after the bag was severed; made to operate similar to the lifter shown in the envelope-machine; the pincers retain their hold of bag till after it is severed.

20. Q. Describe more particularly what, if any, machinery you had devised at the time the said model was completed, to be used in connection with the devices shown in said model, for the purposes of making paper bags of the kind last described from a continuous tube; whether such machinery was intended to operate by power, and, if it be described in any letters-patent granted to you, state what letters-patent they are.

12 O'CLOCK.

The further examination is here adjourned until one and a ½ o'clock p. m.

RANKIN D. JANES,
Special Examiner, &c.

220 1½ O'CLOCK P. M.

Met pursuant to adjournment.

RANKIN D. JONES,
Special Examiner, &c.

A. I proposed to use some of the parts shown in the May patent of 1865, upon which I made application for additional improvements which would be necessary to add to this to operate it by power.

21. Q. Without reference to what is shown and described in the drawing and specification accompanying your application for a patent for additional improvement, will you please describe, with particularity, the mode of operating devices shown in "Goodale Exhibit, 1," in connection with those shown and described in your letters-patent dated May 29th, 1855, or in reference to such parts of the devices shown and described in said last-mentioned patent as you then considered necessary for the practical operation of the devices shown in the "Goodale Exhibit?"

221 A. In the first place, the roll of paper is represented in both machines, or both machines represent taking from a roll. The pasting-device, as shown in the May patent for putting paste under the side laps for the seams would be required on this model, "Goodale Exhibit," but only one paster would be required on this model, "Goodale Exhibit." They both may be pasted on the under side, that is, in both the patent and this model; in the model there must be a continuous application of paste; the side lappers in the model "Goodale Exhibit" were to be operated the same as the side lappers shown in the patent; the end lapper the same as the side lappers, or as shown in the May patent.

22. Q. Which of the knives on cutters shown in said patent of May, 1855, would be used to cut off the bag when said mechanism is used as before described to make bags from a continuous tube, and would any change be requisite from that described in the patent in the arrangement of such knife for such purpose?

222 A. We have always called it by the name of the cross-shears, marked "I" and "I'" in the patent; the arrangement, I think, I had at that time was a straight or circling serrated-edge knife, which operated through the slat which is shown in that model; the operating parts required the same movement for one as the other. I did not fully understand the question; please read the question again.

(Question read again.)

Neither of them; neither of the knives will be used.

23. Q. Was it intended that the mechanism shown in "Goodale Exhibit" should be used in connection with the mechanism shown and described in said patent of May, 1855; and, if so, what apparatus was used, or intended to be used, for the purpose of severing the bags from the tube?

A. It was the mechanism as shown in the model in the interference case.

24. Q. State about how many bags, if any, were made upon "Goodale Exhibit," of the character shown in "Goodale Exhibit, No. 3;" when and where they were made.

223 A. Enough to satisfy me that, when power was attached, that all parts here shown would operate satisfactorily; they were made at my house, the place before referred to, on Main street, Clinton, Massachusetts, and I think, also, at the quilt-mill, *whether* my brothe' William was watchman; it was mostly done evenings, in the spring of 1855.

25. Q. What became, if you know, of the bags thus made of the character described in the last question?

A. I think brother William carried some home with him, and many of them were laying around the house in the cupboard on the shelf for a long time.

25. Q. Were there as many as 200 made?

A. I should think there must have been; that would only take twenty evenings, ten in an evening; we worked at it a good many more evenings than that.

27. Q. State as nearly as you can when you first made bags on said model of the character similar to "Goodale Exhibit, No. 3."

A. I should say early in the spring of 1855.

28. Q. How were those bags cut off?

224 A. With straight shears or scissors, by hand.

29. Q. Did you describe the applicabilities of the mechanism shown in the patent of May 29th, 1855, and the cutting apparatus shown in the specification of your additional improvement to the "Goodale Exhibit" as a means of making paper bags from a continuous tube; if so, to whom did you describe such intended application, and when?

A. I thing I did to my brother William as early as the summer of 1855; I should say before the first of September to Henry, my brother, (he boarded in my family.) I presume my wife knew all about it; she was the one that did the cutting-out of the bags; she used the scissors; I would say many of the bags, not all.

30. Q. State whether or not, subsequent to the date of making the model "Goodale Exhibit," you changed in any degree the devices therein shown or added others thereto, and whether or not a model was made of such devices as changed, and whether an application was made for a patent upon the same.

225 A. The long former for making the continuous tube and the manner of folding the side-laps were not altered from the time of making the first experiment, except the time previous to 1854, January 1st, or very near that date. I should not be willing to swear that a former was actually attached to the block or table, but was proposed to be. I don't understand the question very well.

Respondent here offers in evidence certified copy of file-wrapper, contents, and drawings in the matter of the application of Edward W. Goodale for patent on envelope and bag machines, filed July 26th, 1856, the same being intended as an additional improvement to letters-patent granted said Goodale May 29th, 1855, and marked "Respondents' Exhibit, Patent No. 12."

Complainants object.

RANKIN D. JONES,
Special Examiner, &c.

31. Q. Please examine "Respondents' Exhibit, Patent No. 12." State whether or not you are the Edward W. Goodale therein referred to.

Ans. I am.

226 32. Q. You will please state when the invention therein shown and described, in so far as it is additional to that shown in "Goodale Exhibit," was made.

A. I should say before the first of April, 1856, and think before the first of January, 1856.

33. Q. Are you certain it was before the 1st of April, 1856?

A. I feel sure that it was; I feel sure it was several months before I made application.

34. Q. When and where was the first model made of the devices shown and described in "Respondents' Exhibit, Patent No. 12?" State the time as accurately as you can.

A. It was made at my house, mostly; my brother William worked on it; he may have carried it to the shop at his mill and done part of the

work. I should say it was two, if not three, months previous to the application.

35. Q. What was the cause of the delay between the making of the invention shown in said Exhibit No. 12 and the application for the patent?

227 A. The cause of the delay was my financial affairs were in such shape that I did not have any more money to spend in that direction at that time.

36. Q. How were you employed, and what portion of your time, during the years 1853, '4, '5, and '6?

A. I had charge of the machine-shop yard, repairs of the machinery in the mill. I think it was from 12 to 12½ hours per day's work; six months of it might have been 11½ hours.

37. Q. Did you apply any of your usual working-hours, which you say were 12 to 12½ hours per day, to making improvements in paper-bag machines; if not, what portion of your time did you apply to it, and how continuously did you apply your time to that purpose?

A. I lost no time from regular business; I do not think I saw the machines in working-hours to exceed one day while they were building; the time that I spent with them was before bell-time and after. In 1854 I think I saw them nearly every working morning and night through

228 the year; made my plans, and left them with Deacon Parker or brother William in 1853. I spent at my house from two to six hours of an evening in the last part of the year working on this model and making drawings, and studying on the paper-bag and envelope machine. I did not spend as much overtime in 1855 as I did in 1854; my health and strength would not admit of it.

38. Q. How early, that is, how long before you made your first model of it did you describe the invention shown in "Exhibit, Patent No. 12," and to whom did you describe it?

A. I described it to my brother William before I made the model; I could not say how long before; I have no doubt I did also to Henry, who boarded with me.

39. Q. In this deposition you have stated that you have described your various inventions or improvements at or about the time they were made to your brothers Henry and William, but have not said that you had described them to any other persons; will you now please state whether there was anything in your then position or relation to your em-

229 ployers, or other persons, which prevented you from explaining your said improvements to others than your brothers?

A. I understood it, and we all well understood that the agent of my employers, at that time, would not tolerate any outside business. This was the greatest reason why everything was kept so private, to prevent giving him any occasion to find fault with me in that direction. I was very prompt to be in the mill-yard during all bell-hours, and, if necessary, overtime, for which I had no extra pay. I trusted Deacon Parker with full charge of building my machines. In making charges on the book for labor or material, my name did not appear while the machines and models were being built. The envelope-machine labor and stock was charged to counter No. 1, and the model to counter No. 1; the bag-machine, counter No. 2; and the model, counter No. 2. It was kept so close and quiet that his partner did not know when the machines were completed; and I was there with them so seldom that E. W.

230 Goodale was to foot the bill or was having the work done. This was the reason that I employed my brother William to assist me.

5½ O'CLOCK P. M.

The further examination is here adjourned until 9 o'clock a. m., Wednesday, May 29th, 1872.

RANKIN D. JONES,
Special Examiner, &c.

WEDNESDAY, *May 29th*—9 o'clock a. m.

Met pursuant to adjournment, and adjourned to 12½ o'clock p. m.

RANKIN D. JONES,
Special Examiner, &c.

12½ O'CLOCK P. M.

Met pursuant to adjournment.

RANKIN D. JONES,
Special Examiner, &c.

40. Q. State more particularly your residence in Clinton, Iowa.

A. At the corner of 3rd street and Sixth avenue.

41. Q. In making your application for patent for additional improvement shown in "Respondents' Exhibit, Patent 12," why did you not make a more specific claim for a former?

A. My counsel advised me I could not claim the former, any-
231 thing more than the arrangement.

42. Q. You will please state more particularly than you have done in answer to question 19 what mechanism is shown in the patent of May 29th, 1855, for operating the end folder shown in model "Goodale Exhibit," and how such mechanism operates to that end.

A. The pin or shaft upon which the lapper turns projects beyond the end of lapper or outside of the lapper far enough to receive a small tight pulley. Upon this pulley is fastened a strap of leather. Each end of said strap projects beyond the screw, one end for the purpose of attaching a lever to throw the lap over; the other end to attach a weight or spring to open it or bring it back.

43. Q. You will please state whether or not there was an interference in the Patent-Office between your application shown in "Respondents' Exhibit, Patent 12," and an application of Benjamin F. Rice for letters-patent.

A. There was.

44. Q. Was your testimony used in that interference; and, if not, why not?

232 A. It was not. I supposed it was not allowed by law, as I was an interested party.

45. Q. In the taking or preparing of the testimony, upon your part, to be used in said interference, did you have the advice or assistance of a lawyer?

A. I did not.

46. Q. Why did you not appeal from the decision rendered in that interference?

A. I did not feel that I had the money to go into any such operation as that. Another reason was I did not understand at the time what the interference was that I had to appeal from, and do not to the present day.

Respondents herewith offer in evidence "Model, Goodale Exhibit;" also Goodale Exhibits Nos. 1, 2, and 3.

RANKIN D. JONES,
Special Examiner, &c.

47. Q. You will please state whether Benjamin F. Rice, of Clinton, Massachusetts, did, at any time during the year 1855 or 1856, offer to you or to either of your brothers his invention or paper bag machines,
233 so far as then completed; and, if so, you will please state, as nearly as possible, when such offer was made, to whom, and for what price.

A. He did not to me; I understood that he did to my brother William, for $50, I think, was the price; it seems as if it was the summer or fall of 1855.

48. Q. How was Benjamin F. Rice employed during the year 1855, and where?

A. It would be hard telling where he was employed, or what he was doing; I understood that he was getting up a bag-machine.

49. Q. Did he get up one to your knowledge during the year 1855?

A. I did not see it.

50. Q. State whether or not the machine referred to in your 3rd answer was ever adapted to making bags, if any adaption was required therefor, and if any bags were made thereon; and, if yea, by whom those bags were made on said machine, how many were made, and when they were made.

A. It was adapted to make bags; there were bags made thereon; the bags were made, measured, and folded; there was enough made
234 to satisfy myself and those that saw it that the machine was perfect to do the business; they were made in the fall and winter of 1854, and winter and spring of 1855, by myself, my brothers William and Henry; my wife was there; I don't know whether she did anything about making them; she saw them made.

51. Q. Were the bags so made on this machine uniform in shape, or were they of different shapes?

A. They were all of one shape, being folded on the envelope-table.

52. Q. When did you make the first of these bags on that machine? State as nearly as you can.

A. In the fall of 1854. I don't know that I could come nearer to it than that. I don't wish to give any of my statements at too early a date.

53. Q. Was there any difference between the said machine as originally constructed and the machine shown and described in the drawings and specifications of your patent dated October 9th, 1855?

A. There was.

235 54. Q. Please describe with reference to the patent what these differences were.

A. The paste-dish E, shown in figure one of said patent, was put on expressly to make bags. I prefer to describe these with reference to the model.

(Model is herewith shown to witness.)

The pointer, as shown in the drawings, marked "R," was also put on for making bags.

55. Q. Please describe what, if any, modifications of the parts of the machine, or of their relation to each other, as shown in the model, is necessary in order to enable a machine constructed like the said model to make paper bags.

A. We intended to make bags from a roll attached to the rear part of the machine. As the paper was to pass in a direct line to the folding-stand, the head E would have to be bent or so arranged to allow the paper to pass in a line to the folding-stand; the envelope-stamp would be dispensed with; the gluten-die and paste-box, the plunger

or former and table, would be required to be turned one-quarter
236 round; the bottom lap, or the one next to the shears, would be dispensed with; the lappers would be attached by the rods to the proper levers to bring them over in the right order; the paste-dishes would be require' to be made the proper length and placed in the proper place to apply the paste as desired, and the lappers also would require to be shaped to the proper size for the bag to be made, and the lifter would be required to be placed at the side of the bag to raise it for the pincers to seize and deliver; the lever that operates the self-adjusting table would be dispensed with; the cam that operates it would be turned to raise the table to a proper height to hold the paper to receive the paste. Now, take the end of the paper from the roll, bring it forward to the position that the front end of the envelopes occupy, turn the machine until the pincers are brought forward and seize the end of the paper from the roll, measures the proper distance, and leaves it on the folding-stand in proper place to fold or be creased by the plunger.

Now take the length of the paper for a bag before folding, meas-
237 ure the same distance from the front end of the paper towards the roll of paper; it will give you the line of the bag to be served, and at which to place the shears referred to in the specification of October, 1856, patent, as the one used on my May, 1855, patent, to cut the paper for a bag before folding; the blank receiving the paste before it is measured or cut from the roll.

56. Q. Are these modifications substantially described in your letters-patent granted October 9th, 1855?

A. They are substantially, I should say, but not as minutely.

57. Q. You will please introduce and mark as exhibits in this cause paper folded in the form of bags such as you made on the said envelope-machine in the fall of 1854.

A. I here produce bags of substantially that form, and mark them "Respondents' Exhibits, Goodale Exhibits, 4, 5, 6, 7." They were all cut by hand.

58. Q. Which of the bag exhibits, 4, 5, 6, or 7, represents the form of bag that the machine would cut and make when it is operated as a
238 bag-machine, as described in the patent and in your answer to question 55th?

A. 7.

59. Q. How early did you make bags like Exhibit 7 upon the machines heretofore spoken of?

A. In February or March, 1855.

60. Q. About how many such bags did you make on said machine, and where was such machine situated when said bags were made upon it?

A. We made but very few of them of that kind. We satisfied ourselves by folding the other shapes that this shape (Exhibit 7) would fold as well; the other shapes were made before this; they were all made by hand, but folded upon the machine; they were made at Deacon Parker's shop, near the railroad, on the east side of Rigby road.

61. Q. As I have understood you, the bags made upon the machine in question in 1854 and 1855 were not pasted upon the machine; will you please state what was your then reason for omitting to paste said bags on said machine?

A. We had no arrangement for it.

239 62. Q. When you sent your model to your solicitor to have him apply for the patent granted October 9th, 1855, did you or not send therewith paper bags and paper cut in the form of figure 9 at-

tached to said patent, to be by said agent sent with the model to the Patent-Office?

A. I did.

63. Q. Do you know whether or not said bags were in fact sent by your agent with the model to the Patent-Office?

A. I do not.

64. Q. Were the bags which you sent to your solicitor to be sent to the Patent-Office folded from blanks of the form of figure 9 shown on said patent?

A. They were.

65. Were any of the specimens of bags sent by you at that time partly formed, such as shown in figure 19, attached to said patent?

A. Yes.

66. Q. Were you, or not, in the belief that these bags and blanks had been in fact sent to the Patent-Office, and when did you learn differently?

A. I supposed they would be retained with the model; I learned
240 to the contrary, I think, about the time of the suit of Binney against E. A. Hollingsworth and others, in the year 1867.

67. Q. Will you please state more particularly, if you can, when bags, such as Exhibit 7, were first folded by you on your first envelope-machine?

A. It might have been in January, 1855, but February or March is as close to it as I can give it at this length of time.

68. Q. How long was it from the time bags were first folded in the way described until you commenced to make your Patent-Office model of the Goodale machine?

A. I should think that the model was being made about the time that we were at work on those bags; the model was finished, so I took it to the solicitor in March, 1855.

69. Q. Who, in addition to yourself, if any person, folded bags like Exhibit 7 on said machine, or knew of your folding them at the times above indicated?

A. My brothers William and Henry, and my wife.

240 Cross-examination by Edward J. Howlett for complainants:

X 70. Q. Was the machine, which you say was constructed in the fall of 1853, like the "Respondents' Exhibit, Goodale Exhibit," a full-sized working machine; if so, did it work satisfactorily? How many bags did you make on it, and when, and was power ever attached to it?

A. Yes; a full-sized for that sized bag; about the size shown on the *bottle*. It worked satisfactorily as far as it went. I wish to alter my answer to question 26th. I think two hundred was too many; I think it would not exceed one hundred of that particular kind; of all kinds I made, I should say 150. No; I should say not more than five bags. I made them at many different times, from 1853 to spring of 1855. There was no power ever attached to it.

X 71. Q. How did that machine compare in size with "Respondents' Goodale Exhibit?"

A. This one is about an inch or inch and a half longer and $\frac{3}{8}$ narrower.

X 72. Did that model form paper from a continuous roll of paper into a continuous tube?

242 A. It did long enough for one bag.

X 73. Q. In your opinion, were bags cut from paper shown in "Goodale Exhibit, 2;" from a continuous tube?

(Question objected to.)

A. I have always said they were not; I have always thought so, and I can't alter it now.

X 74. Q. Have machines constructed or used by you for making bags from a continuous roll of paper into a tube, and cut to proper lengths for bags without waste of material?

(Question objected to as immaterial.)

A. Not unless this ("Goodale Exhibit") represents one.

X 75. Q. Did you ever make bags on the machines built in accordance with your May 29th, 1855, patent with the side shears removed, and could you possibly make a bag on that machine from a tube or other than described in drawings marked "Figure 4" in said patent?

A. We never did make any other kind than the one shown in Figure 4; we could not without altering the machine.

243 X 76. Q. What alterations would be required to be made?

A. We never intended to alter that machine to any other machine, but intended to apply the other invention to it, as I stated yesterday.

X 77. Q. What other invention do you refer to?

A. The "Goodale Exhibit," as I described yesterday or to-day.

X 78. Q. Have you not already stated, and was not the "Goodale Exhibit" your first invention of a paper-bag machine?

A. I should think not a machine.

X 79. Q. What do you mean by this answer?

A. A complete machine.

X 80. Q. Does not the "Goodale Exhibit" show your first inventions in paper-bag machines?

A. It shows the one I commenced first.

X 81. Q. Is it not substantially the machine you were in interference with with one B. F. Rice?

A. It is.

X 82. Q. Did you ever get the side cutters like "Exhibit Goodale, Shears," patented; if so, when? I mean for cutting each side of the paper one-quarter?

244

A. Not hung in that form.

X 83. Q. Did you not claim in your patent of September 12th, 1865, "making the side cutter with curved ends substantially as and for the purpose set forth," showing a cut similar to "Goodale Exhibit, 2?"

A. Yes.

X 84. Q. How did you designate the shears on your patent of May, 1855?

A. Cross-shears and side-shears.

X 85. Q. Do you not state in the specification of your patent of October 9th, 1855, among the changes that would require to be made, the bending or arranging of the goose-neck to enable you to use the shears such as are described in your letters-patent of May 24th, 1855, to pass at the side of it?

A. I did.

X 86 Q. Do you not also state in specification of said patent "that C is a table which carries a pile of blanks, and that said blanks are supposed to be cut to the proper form before being introduced into the machine?

A. Yes.

245 X 87. Q. Have you not stated in a former deposition that you first folded bags in the winter of 1855, after Thanksgiving, on your envelope-machine, and that they were cut by hand; that you intended to cut the blanks with a die?

(Question objected to.)

A. I did.

X 88. Q. At the time you sent your model (afterwards patented, October, 1855) to Munn & Co., New York, on or about July 3rd, 1855, did you write them a letter, to which was the following, which you wished to claim: "The pincers, to take the paper from the roll of paper, measure the length for a bag, stop for the cross-shears to cut it off, then start and stop for the side or beveled shears to shape the paper; then start with the paper shaped ready to fold and leave it on the folding-stand"?

(Question objected to.)

A. I think I did write like that at some time. I could not state the time.

X 89. Q. In answer to question 59th, direct examination, as to how early bags like Exhibit 7 were made upon the machine, you say
246 February or March, 1855; and, in answer to question 61st, you had no arrangement for pasting the blanks at that time; had you any arrangement at that time for cutting the paper blanks?

A. No.

X 90. Q. When did you first cut blanks for bags on your machine patented October 9th, 1855?

(Objected to.)

A. I think it was in the winter of 1856; December, 1856, I think.

X 91. Q. Were those bags made and sold on the market at that time?

(Objected to.)

A. No; I did not make any bags to sell.

X 92. Q. Are you willing to swear upon your oath that it was in the winter of 1856?

A. I believe I said I think it was. I did not swear I was positive it was in 1865-'7.

X 93. Q. When did these machines first make bags which were sold upon the market—I mean cut from a continuous roll of paper, one blank fitting into the other, without waste of material, and how many machines were operated, and where?
247 (Question objected to as immaterial.)

A. I never made any upon any such machines.

X 94. Q. Did any one else, to your knowledge?

(Objected to.)

A. No, sir.

X 95. Q. Did you, or any one else, ever make such machines?

(Objected to.)

A. Not to my knowledge.

X 96. Q. You never built any second envelope-machine besides the one you have been testifying to, did you; or did any one else, to your knowledge?

(Question objected to.)

A. Not to my knowledge.

X 97. Q. Have you not previously said your object in getting your patent of October 9th, 1855, re-issued was to floor Rice, or language to that effect?

(Question objected to.)

A. I think likely.

5½ O'CLOCK P. M.

The further examination is here adjourned until Thursday, May 30th, 1872, at 9½ o'clock a. m.

248 RANKIN D. JONES,
Special Examiner, &c.

THURSDAY, *May 30th*, 1872—9½ o'clock a. m.

Met pursuant to adjournment.

RANKIN D. JONES,
Special Examiner, &c.

X 98. Q. Did you ever build a working-machine with a former, around which and in connection with which the tube was severed without waste of material, with one side projecting beyond the other, for the purpose of forming the bottom lap, and convenience of opening; if so, when?

(Question objected to.)

A. I never did.

X 99. Q. When were paper-bag machines invented and patented by you first used in making bags for the market, and under what patents?

(Question objected to.)

A. 1854 or '5, I believe.

X 100. Q. How many thousand?

(Question objected to.)

A. I should think not any thousands, but some hundreds; under the May 29th, 1865, patent.

249 X 101. Q. Are those all that were ever sold upon the market made upon machines constructed under the May, 1855, patent?

A. There was several thousand made and sold in 1855 by the second machine, made in 1855, substantially like the 1854 machine.

X 102. Q. How many thousand in all were ever made on those machines and sold?

(Question objected to.)

A. I should say five thousand made by myself or brothers, but how many were made by Jenks, of Providence, Rhode Island, who runs the machine, I am not able to state.

X 103. Q. Did not Jenks return those machines to you for the reason that they did not work satisfactory?

(Question objected to.)

A. He did; he said they were too light.

X 104. Q. What kind of knife was in those machines?

(Question objected to.)

A. A straight knife, for cutting off transversely. By his request, after my proposal to change and put in the curved knife, as we
250 were experimenting with that machine, and experiments were found to work well, we intended putting in the curved knife. He said he was in a hurry, and would not wait to have it done on that machine.

X 105. Q. I understand you, then, this was merely an experimental machine?

(Question objected to.)

A. It might be called so in one point.

X 106. Q. Did not Charles W. Jenks testify in the Binney case which you have mentioned, "We never made a perfect bag on the machine"?

(Objected to as irrelevant, immaterial, and heresay.)

A. I don't know what he testified to, or anything about it. I know there was perfect bags made while the machine was at his shop.

X 107. Q. Do you not find Jenks did so testify in his deposition in said case?

(Complainant here produced affidavit referred to. Question objected to, and the examination of such affidavit objected to.)

A. It seems by that book it did.

251 X 108. Q. In your answer to question 15th you say you did not abandon the idea of making bags without waste of material; did you ever perfect your idea, make application for and obtain a patent for such invention; and, if so, when; and did you, or any one else, ever build workind machines so constructed?

(Objected to.)

A. What I meant there was that I did not mean to abandon the idea of making bags with a long former without waste with that arrangement.

X 109. Did you not just say you had not got as far as making bags without waste?

(Question objected to.)

A. At what time? When do you refer to?

X 110. Q. In continuation of your last answer.

A. I said so. I used that expression referring to the fall of 1854.

X 111. Q. X-question 108 repeated.

(Question objected to.)

A. I did perfect my idea. I did make application for and obtain a patent for such invention on the re-issued patent of *patent of*

252 October 9th, 1855. I did build working-machines so constructed, except applying the paste.

X 112. Q. And except cutting off?

A. No; I will not except cutting off. I did arrange to cut off.

X 113. Q. Did you make the changes which you have stated were required to be made to make bags from a continuous roll on the envelope-machine, and how many bags did you make, and when?

A. I did all except the pasting; made from one to two hundred in the winter and spring of 1856 or 1857.

X 114. Q. Did you not obtain a patent September 12th, 1865, for making bags from a continuous strip of paper, and cut without waste of material, and were they not the first machines invented by you upon which bags were made and sold on the market of that form?

(Question objected to.)

A. I obtained a patent, I think, of that date, which made a bag without waste. The patent was granted me on said machine; they were the first machines.

253 X 115. Q. Was not the Binney suit, mentioned by you, against E. A. Hollingsworth and L. Whitney, jr., (one of the owners of the Rice patent,) brought under your two re-issued patents of May and October, 1855, and was not the decree rendered in favor of Hollingsworth & Whitney?

(Question objected to.)

A. From my own knowledge I would not be able to answer. I do not know whether they were brought under the two first patents or the re-issued patents.

X 116. Q. In answer to the 19th question, you say "the slotted end lapper was added about the time I received notice that my May, 1855, patent had been granted." Are you willing to swear positively it was not four or six weeks after it had been granted?

A. I am not willing now so to swear, having previously asked permission to alter that statement, when I was told or answered I could

have the privilege to do so when the evidence would be all read to me before requiring me to sign it.

X 117. Q. Do you wish to change your answer to the question referred to?

254 A. I do, or I should not have asked the permission to do so. I do not feel positive that I so altered the end lapper on the Goodale exhibit; but I will say that soon after the patent came out I did arrange for that arrangement for cutting off the end lap, as shown on the model, being one of my last completing arrangements.

X 118. Q. Was this device shown in your application of July 26th, 1856?

A. Substantially—that is to say, cutting through a slot.

X 119. Q. Give the time, as near as you can, that you made this invention before making your application for said patent.

A. As near as I can recollect, I should say it might be six months before, perhaps more; not less than six months. My reason for making this answer, I think it was not much less, if any, than three months before I gave the model into the hands of the draughtsman, and I know that it was a long time I was making the model; and I had to do it principally in the evenings, at my house, after working 12 and 12½ hours a day, and many of my evenings were occupied in connection with

255 business for my employers.

X 120. Q. Will you give the date, as near as you can, when you placed the model in the hands of the draughtsman?

A. I have given it as near as I can. It was from two to three months before the date of my application, (July 26th, 1856.)

X 121. Q. Did you not employ C. G. Stevens, esq., to conduct your interference case with B. F. Rice, and take the testimony in the same?

A. I did. I employed him for that.

12½ O'CLOCK P. M.

The further examination adjourned until 2 o'clock p. m.

RANKIN D. JONES,
Special Examiner, &c.

2 O'CLOCK P. M.

Met pursuant to adjournment.

RANKIN D. JONES,
Special Examiner, &c.

X 122. Q. I understand from your testimony that you never made bags from a continuous roll on your machine built under the October, 1855, patent, but that in the winter of 1855–'56 you cut, for the

256 first time, some few blanks, experimentally, *it* at your house. Am I right?

A. Yes; that's so.

Re-examination by James Moore, esq., for respondents:

123. Q. What do you mean by the winter of 1855–'56?

The witness will please read last question and answer, and see if it correctly represents his meaning.

A. I mean, by 1855, December; and 1855–'56, I mean December, January, and February; 1856–'57, I mean December, January, and February; the answer does not fully represent my meaning.

124. Q. You have stated in your direct examination that you made bags on the envelope-machine in the fall of 1854, and that you made bags

like Exhibit No. 7 about January or February, 1855. If I understand you correctly, the last two answers, you now say that you did not make bags in 1854 nor in the early part of 1855, and that you did not make any until the latter end of 1855. Please explain how this is.

(Objected to, as it misrepresents the witness, who stated that
257 he merely folded the bags on the machine which were cut by hand.)

A. I ask to have the question to which I gave this answer read.

(Question 122nd and answer and question 123d and answer read to witness.)

I have said before that I did not cut those bags on the machine, but I did say that I made bags like Exhibit No. 7 on that machine as early as January or February, 1855.

125. Q. In answer to cross-question 73d you have stated that in your opinion a tube made on "Respondents' Goodale Exhibit" is not a continuous tube; why?

A. The separation on one side—the pasting on one side of the continuous paper.

126. Q. In the interference hereinbefore referred to, was there a copy of "Goodale Exhibit" or any drawing of it offered in evidence in your testimony; if not, why not?

A. There was not, for the reason that my counsel said that if my brothers understood the working of that model it would not be necessary to offer it as *as* evidence.

127. Q. Was your counsel in that case, M'r Stevens, present when the testimony on your part was taken; if not, why not?

258 A. He was not. I think he was out of town.

128. Q. Why did you not paste the bags made by you upon the envelope-machine at Deacon Parker's shop in the fall of 1854 and in the winter of 1854–'5?

(Objected to.)

A. As we were using the envelope-machine very frequently, we did not wish to alter or disarrange it for making envelopes, as we could see all that was necessary without applying the paste.

Recross-examination by Edwin J. Howlett for complainants:

Re-X 129. Q. M'r Moore, attorney for respondents, in asking questions to you in reference to what you done on your envelope-machine of October, 1855, uses the words "made bags." When do you consider a bag made; when it is cut or folded, or when it is pasted so as to hold groceries?

A. I should not call cut and folded only a bag, or pasted only a bag.

Re-X 130. Q. When do you consider a bag made?

A. When it is cut, folded, and pasted properly.

259 Re-X 131. Q. Then did you ever make a bag on your envelope-machine of patent of October, 1855?

A. All except the pasting.

Re-X 132. Q. Have you not stated in an answer in your direct examination, in nearly 400 words, alterations that were required to be made to enable you to make bags on that envelope-machine?

A. I could not say, not knowing.

Re-X 133. Q. You will please count the words in the answer to question 55th, which reads: "Please describe what, if any, modifications of the parts of the machine or of their relation to each other as shown in the model is necessary in order to enable a machine constructed like the said model to make paper bags, and state how many there are."

(Counsel for respondents hereby instructs the witness that he is not

bound to waste time of himself and counsel in performing such labor, and that he may decline to answer.)

A. I suppose I am bound to take the advice of my own counsel.

E. W. GOODALE.

260 Subscribed in my presence and sworn to before me this 30th day of May, A. D. 1872.

RANKIN D. JONES,
Special Examiner, &c.

FRANK MILLWARD, a witness recalled on behalf of respondents, deposeth and saith, in answer to interrogatories to him propounded by James Moore, counsel for respondents, as follows:

1. Q. You will please state whether or not a machine made in all respects in accordance with the drawings and specifications attached to re-issued letters-patent No. 920, granted Morgan, Whitney, and Priest, on the action of Benjamin F. Rice, would be a practical, operative machine for the purpose of making paper bags; and for the purpose of this answer you may also examine "Complainants' Exhibit C," and assume that such a machine could be made from the drawings and specifications attached to said patent, and give your reasons for such opinion as you may express.

A. Such a machine would not, in my opinion, be operative in
261 the manufacture of paper bags, owing to very important mechanical omissions which I will specify as follows: Such a machine as shown in "Complainants' Exhibit C" would have no adequate provision for the guiding of the paper to the feeding-rolls and guiding the same to the rolls which apply the paste.

3 O'CLOCK P. M.

The further examination is here adjourned until Monday, June 3d, 1872, at 10 o'clock a. m.

RANKIN D. JONES,
Special Examiner, &c.

MONDAY, *June 3d*, 1872—10 o'clock a. m.

Met pursuant to adjournment.

RANKIN D. JONES,
Special Examiner, &c.

WILLIAM GOODALE, a witness produced on behalf of the respondents, being first duly sworn, deposeth and saith, in response to interrogatories to him propounded by James Moore, esq., of counsel for respondent, as follows:

The witness objected to the complainants, for the reason that he is not set out in answer or amended answer.

262 1. Q. State you name, age, residence, and occupation.

A. William Goodale; age, 62 years; residence, Clinton, Massachusetts, in Kendal's block, near the quilt-mill pond, east side; occupation, fireman; there is no name to the street.

2. Q. Examine "Respondents' Goodale Exhibit," and state when you first saw a machine or model similar to that; who showed it to you, and for what purpose was it.

A. The last of November, 1853, my brother, E. W. Goodale, showed it to me; it was for the purpose of folding bags.

3. Q. When did he show it to you, and where was it usually kept?

A. He showed it to me at his house, North Main street, Bigelow's carpet-mill, Clinton, Massachusetts. I could not tell where it was usually kept.

4. Q. Did you ever see paper bags made or folded upon it; if so, when did you first see them?

A. I saw them folded in the winter of 1853–'54.

263 5. Q. Please examine "Goodale Exhibit, I," shown you; state whether you ever saw bags made from a continuous tube like that on said model; if so, when?

A. Never did.

6. Q. Did you ever see them folded, and when?

A. I did, the last of November, 1853, but not cut apart. I saw paper folded in that shape.

7. Q. Who folded them, and where?

A. My brother, Edward W. Goodale, at the same place and time that he showed me his first block-model.

8. Q. Did you ever see paper bags folded upon said model similar to "Goodale Exhibit, 2," shown you; if so, by whom and when?

A. I did, in the spring or fall of 1854; fall, I think; shown me by E. W. Goodale, at Deacon Parker's shop, in Clinton, Massachusetts.

9. Q. Did you ever see paper bags folded on said model from a continuous tube, similar to "Goodale Exhibit, 3," if so, by whom, when, and where?

A. I did not see them folded similar to these, from a continuous
264 tube on a machine. I want to ask a question, whether the question asks on a model or machine?

(Question read to witness again.)

A. I did, by Edward W. Goodale, at Deacon Parker's shop, in the forepart of winter, 1855; in January, 1855.

10. Q. Were those bags cut off, or was any arrangement described to you by said Edward W. Goodale by which they were to be cut off; if so, what character of arrangement was it?

A. They were not cut off; the arrangement was described; a shear hung from the side, I think.

11. Q. Do you know whether that shear was shown and described in any subsequent application by E. W. Goodale for letters-patent?

A. I think there was something in the specifications respecting the arrangement of cutting off; whether put on to the model or not, I cannot say.

12. Q. What specifications do you refer to?

A. The envelope and bag machine.

13. Q. About how many bags like "Exhibit Goodale, 3," were made during January of 1855?

265 A. It would be difficult to tell; there might be fifty; there might be three times that; they were made a few at a time.

14. Q. Are you aware that E. W. Goodale applied for a patent for additional improvement upon this bag-machine patent, which application was filed during July, 1855, and on which an interference was declared in the Patent-Office as between said application and the application of one B. F. Rice?

A. I am.

15. Q. Did you or not see the model sent to the Patent-Office with that application?

A. I did see it.

16. Q. State when that model was made, and by whom.

A. It was made some time in February and March, 1856, I think; made by my brother, Edward W. Goodale, and myself.

17. Q. When was it sent to the draughtsman, who made the Patent-Office drawings from it?

A. I think it must have been in the forepart of April, 1856,
266 because I went to the draughtsman to see if he had any records from which he could tell when he received the model; he said he had none but his memorandum-book; on examining that, found charges for work on draughting as soon as April. He said that that model was all the draughting he ever did for E. W. Goodale.

18. Q. How long before the said model was made, if at all, was it that your brother described it and its operation to you?

A. I should think, a month; it might be longer, and it might not be quite so long; it was not all explained at one time.

19. Q. Did he or not give you such explanation of said model, or the invention embodied therein, as then enabled you to entirely understand the construction of such invention and its mode of operation?

A. I then considered that he did.

20. Q. How early was this with reference to the time the model was made?

A. The whole arrangement of the model, it might be from one
267 to two months before the time the model was made.

21. Q. Are you a machinist? Do you understand drawings, or would you now be able to recollect the construction of said invention?

A. I am not a machinist; I do not understand drawings; I do not recollect wholly the invention.

22. Q. Please look at "Respondents' Goodale Exhibit, 7," and, assuming that such bag is not pasted, did you ever see bags made or folded similar to it; if so, when did you first see said bags made or folded, on what machine were they so folded, and where and by whom?

A. I did see similar bags folded at different times in the winter of 1854–'5, and spring of 1855. They were folded on the envelope and bag machine of E. W. Goodale, at Deacon Parker's shop, by E. W. Goodale and myself.

23. Q. Can you state the date of the patent granted E. W. Goodale for the machine referred to in your last answer? If not, state it as nearly as you can.

268 A. I cannot; it was in 1855, I think; the second patent granted to him in 1855, I think.

24. Q. State whether or not E. W. Goodale did, in the fall of 1854, explain to you his mode of making bags upon the envelope-machine in such manner as to have then enabled you to adapt said machine to make paper bags such as shown in "Goodale Exhibit, 7;" state, also, whether, in point of fact, you did make or fold such bags during the fall, on the envelope-machine.

A. I think he did show me some, but not fully; I would not be positive as to the fall or forepart of winter, which it was; I would not be willing to state that I made them in the fall.

25. Q. If I understand you correctly you mean that he did explain to you how to adapt the machine to make bags like Exhibit 7, and that you actually made bags like Exhibit 7 on said machine, but that you are uncertain as to whether these events occurred in the fall of 1854 or the forepart of the winter of 1854–'5; is that right?

269 A. I do wish to be understood that he explained to me how to fold bags similar to Exhibit 7 in the fall of 1854 or winter of

1854–'5. I wish it plainly understood that I don't mean made bags; I mean folded, not cut.

26. Q. In what form was the paper when put in the machine by E. W. Goodale and yourself for the purpose of making bags?

A. It was cut in blanks and laid on the table in a pile.

27. Q. Why were they not pasted on said machine at that time?

A. He had not any arrangement of proper shape to apply the paste in its proper places on the machine.

28. Q. Why did he not put on such an arrangement to paste the bags with?

A. As I understood him he did not think it necessary to be to the expense of putting them on, as he was confident there would be no difficulty in arranging pasters.

12 O'CLOCK.

The further examination is adjourned until one and ½ o'clock p. m.

RANKIN D. JONES,
Special Examiner, &c.

270 ONE AND ½ O'CLOCK p. m.

Met pursuant to adjournment.

RANKIN D. JONES,
Special Examiner, &c.

29. Q. About how many bags were folded similar to Exhibit 7 by yourself and brother upon the envelope-machine in the fall of 1854?

A. I could not say; the most that we folded on that was in the winter of 1854–1855; should not be willing to state whether there was any folded before winter or not.

30. Q. State whether or not you were acquainted with B. F. Rice, of Clinton, Massachusetts, to whom letters-patent for improvements in paper-bag machine, dated April 28th, 1857, were granted.

A. I was acquainted with Rice.

31. Q. State whether or not you had any conversation with B. F. Rice, in August or September of 1855, in relation to his invention subsequently patented; if so, state the substance of that conversation, when and where it occurred.

271 A. I did have a conversation with B. F. Rice in August or September, 1855, in regard to a machine for making paper bags which he had been inventing. He said he had got against a stump; he could fold a tube and cut them off very fast square for coffee-bags, but had not got so as to fold the bottom lap; that he would sell to me for fifty dollars all of his concern. He then said he had made the same offer to John Smith, and if he did not take it, I might have it. This conversation was in the bleach-house of the quilt-mill.

32. Q. Describe more particularly, if you please, what is meant by the following language: "He could fold a tube and cut them off very fast square for coffee-bags, but had not got so as to fold the bottom lap," taken from your last answer.

A. I will give you Rice's interpretation as near as possible, and as I understood it. Cutting off square would be cutting square across the tube of paper after folding into a tube; it would have them open at both ends, with no way to paste them; this is the way or very nearly as he explained it to me.

272 33. Q. Do you mean by square across that the tube was cut so as to have one side longer than the other, or otherwise; how was it?

A. As I understood him, to be square across when the bag was open; he gave me no explanation how or what he cut it off with, or the arrangement for doing it, but simply said square across.

34. Q. Which of the exhibits, Goodale Exhibits, 1, 2, or 3, if either, represents the mode of cutting shown or explained to you by said Rice?

A. Exhibit 1, if it was cut clear through.

35. Q. Was B. F. Rice, during the years 1855 or '6, in the habit of making visits to the shop of Deacon Parker; if so, about how often was he in the habit of visiting said shop every week; had he any business there? And please further state whether or not he was ordered by Deacon Parker to discontinue those visits.

A. He was in the spring of 1855; I should think it would average daily for some time. He had no business there to my knowledge.

273 I did not hear the deacon speak to him, but saw the deacon go to him and say something; the hands that were near by said the deacon told him he did not want him around there so much.

36. Q. State, if you know, what was the deacon's reason for not wanting him around there so much.

A. I understood that he told him that Goodale felt that his only business there was to peek after his machine, and he wished he would keep away.

Cross-examination by Edwin J. Howlett, for complainants:

X 37. Q. What was E. W. Goodale's financial condition in 1855?

A. I should not be able to state further than I was satisfied from appearances that his funds began to run low.

X 38. Q. About how many thousand dollars was he worth at that time?

A. I did not know then, before, or since the amount that he was worth.

X 39. Q. Why did you not buy M'r Rice's invention for fifty dollars, as you was at work with your brother E. W. at that time; would it not have been cheaper than the interference case which he had with B. F. Rice?

274 A. First, I was not at work with my brother constantly at that time, only occasionally; second, he offered it to me with an if—if John Smith did not take it; third, I don't think it was his object to sell it to me; fourth, there was great doubt in my mind whether he had got it so as to fold in a tube at that time.

X 40. Q. Did John Smith accept his offer and buy his invention?

A. Not to my knowledge.

X 41. Q. What was M'r B. F. Rice's financial condition at that time?

A. From my own knowledge I am not able to say.

X 42. Q. Was he not considered in the community a poor man, living on his weakly wages?

A. He was considered a man not much forehanded.

X 43. Q. In your answer to 2d direct question you say you saw a model similar to "Exhibit Goodale, Model," in November, 1853; how are you enabled at this time to give that date?

275 A. In giving in my testimony to the Binney or interference case, I went to the quilt-mill counting-room to ascertain when I left the watch and went into the yard to work, and found it to be, I think, the 26th or 27th of the month. This change gave me the evening to myself. Feeling anxious to see what my brother's ideas were on bags that he had been speaking to me occasionally about as we met, I went

to his house, I think, as soon as the second evening, which would make it the last of November.

X 44. Q. Was Mr Binney interested in the interference case?

(Objected to)

A. I think not;; not to my knowledge.

X 45. Q. Have you not consulted with your brother, E. W. Goodale, during last week, prior to testifying in this case, and were you not present in this room during the taking of a portion of his testimony, and have you not read from your testimony taken September 20th, 1869, in a former suit, since you have been in this city waiting to testify in
276 the case;; and are not these facts which enable you to give the duties as you have done?

A. We have talked the matter over between ourselves. Of course I was present. I have read my testimony given in a former case to some extent, to strengthen my mind on duties. In some measure these facts enable me to give the duties.

X 46. Q. Did you ever see the cutters or knives (mentioned by Mr Moore in his 22nd direct question to E. W. Goodale) on E. W. Goodale envelope machine?

A. Never saw any cutters on it to my recollection.

X 47. Q. Do you know of your own knowledge whether E. W. Goodale ever put knives or cutters on the machine for cutting paper transversely?

A. I do not.

X 48. Q. Has not E. W. Goodale said to you the past week that he did put knives or shears on that machine in the winters of 1856 and 7, or the winters of 1857 or 8, experimentally, and that they did not work satisfactory?

(Question objected to as hearsay.)

A. He tells not.

277 X 49. Q. In your answer to 11th direct question, as to whether the shears was described in any subsequent application of E. W. Goodale, you say, "I think there was something in the specification respecting the arrangement of cutting off." Did you understand that shear to refer to a shear or knife which cut the paper at one movement entirely across the paper to the required form, so that no further cutting was required to cut the paper the required form for a bag, or did you understand it to cut the side first and after the middle of the paper; on the envelope machine, I mean?

A. As my memory serves me, it was to cut off "Goodale Exhibit, 3," after the side laps were folded.

X 50. Q. Was the former on the "Goodale Exhibit," as seen by you in November, 1853, fixed as it now is, or was it held by hand?

A. The former was held by hand, with three hinges on it, similar to that, ("Goodale Exhibit,") in November, 1853, when I first saw it.

X 51. Q. Were you not the inventor of a paper-bag machine
278 granted to you July 12th, 1859, and did you not claim first "making a cutter which cuts the paper from the roll or piece, of the form herein described; that in cutting off the paper, it also cuts it to the required form to fold into a bag without further cutting;" and did not said cutter cut the paper from its own weight, and were not millions of bags made and sold upon the market on machines built in accordance with said letters-patent?

(Objected to.)

A. I was the inventor. I did so claim said cutter did cut the paper

from its own weight. I am unable to tell further than what I made myself on the machine.

X 52. Q. Did not Harris & Sons run two of said machines from about May, 1862, to about September, 30th, 1864; and did not Benjamin S. Binney afterwards run the same machines; and Roberts & Sons run the same, previous to Harris & Sons purchasing of them?

(Objected to as immaterial and irrelevant.)

A. I am not able of my own knowledge to say when Harris & Son commenced, or when they ended. I saw them a very few
270 minutes once in Harris' shop; one of them was arranging. I can't say of my own knowledge as to Binney. As to Roberts, I have no personal knowledge further than they were packed and put aboard the cars to be sent to him.

X 53. Q. Did you ever see the goose-neck bent to one side, as shown in the "Respondents' Exhibit, Goose-Neck," on the E. W. Goodale envelope-machine?

A. I never saw what I consider called goose-neck on the bag and envelope machine, except in one form or shape; that shape or form was like the one that was on the model that was sent to Munn & Co.; I should think it was the same as shown on the "Model Respondents' Exhibit, Envelope-Machine."

X 54. Q. Did you ever see bags folded upon the envelope-machine otherwise than from a pile of blanks, previously cut to the required form, and were they cut with a die; if not, how were they cut?

A. I never did; they were not cut with a die; they were cut either with a knife or shears.

X 55. Q. What sized bags were these?

280 A. They were cut off a proper size to fit the machine as it was made.

X 56. Q. Were they made from a pile of blanks placed upon table C, the same as the envelopes?

A. They were placed upon the table the same as the envelopes, in a pile, or singly; both ways.

X 57. Q. Did the pincers remove the upper bag after its being folded?

A. I don't understand that question. There was but one bag being folded at a time on the folding-stand.

X 58. Q. Did the pincers carry the upper bag each time to the folding-stand?

A. They did.

Re-examination by James Moore, esq., of counsel for respondents:

59. Q. When the model of the envelope-machine was first sent to Munn & Co., were there any bags sent with it to be sent to Washington and filed with the model? If so, state whether these bags were folded and pasted, or folded simply.

A. When the model was boxed up, there was bags folded, and,
291 I think, blanks not folded, put into the box; whether pasted or not I cannot state.

X 70. Q. How did the bags and blanks then sent to Munn & Co. compare in form with "Goodale Exhibit, 7?"

A. As my memory serves me, they were of similar form, but should not say precisely.

Recross-examination by Edwin J. Howlett for complainants:

Re-X 61. Q. Besides the patent of July 12th, 1839, did you not make application for a patent granted you August 23rd, 1839, and did not E. W. Goodale purchase them both from you?

A. He purchased what patents I had granted; I think it was two I had. The patents will speak for themselves.

WILLIAM GOODALE.

Subscribed in my presence and sworn to before me this 3rd day of May, 1872.

RANKIN D. JONES,
Special Examiner, &c.

Edward W. Goodale, a witness, recalled by complainants, by
282 consent of respondents, for the purpose further cross-examination, deposeth and saith as follows:

X 1. Q. Will you please give the months and year when you first put the knives on your envelope-machine and cut blanks from a continuous roll?

A. I think that it must have been the first or second winter after the interference case, for the reason that I was engaged in the winter previous to the interference case arranging that model; that is, the winter months.

X 2. Q. Did those shears work satisfactorily?

A. I cannot say that they worked as well as the ones I had in operation in 1854.

X 3. Q. From your experiment at that time with them, you did not feel justified in building a full-sized working machine for making bags, did you?

(Question objected, for assuming what has not been stated as testimony by the witness, to wit, that these are experiments.)

283 A. I don't know as that was the only reason why I did not proceed to perfect my machine at that time.

Re-examination by James Moore, of counsel for respondents:

4. Q. Did you regard your machine perfected for making both bags and envelopes before the beginning of 1855, or in the fall of 1854?

A. I did, so far as I could judge before I tried the experiment.

Recross-examination by Edwin J. Howlett, esq., for complainant:

Re-X 5. Q. Which part of the bag was carried forward first by the pincer in the envelope-machine; that part which forms the bottom lap, or the mouth of the bag?

A. The bottom lap.

Re-X 6. Q. Will you please, then, explain how the pointers marked in that patent assisted in forming the bottom lap?

A. The table and plunger, as I have described, was to be turned one-quarter round, and the pointers were to come in upon the paper after the sides were turned to break it for the bottom lap; the pointers
284 would have to be changed to the bottom corner of the table.

Re-X 7. Q. Why were they not shown in their proper location upon the model?

A. I think they were; they were intended to be, or to come as I have described after the changes were made.

Witness wishes to make an explanation, and I should like to add a little to my answer to cross-question 2d. They were not so perfectly made.

E. W. GOODALE.

Subscribed in my presence and sworn to before me this 3rd day of June, 1872.

RANKIN D. JONES,
Special Examiner, &c.

James M. Shumard, a witness produced on behalf of respondents, being first duly sworn, deposeth and saith, in answer to interrogatories to him propounded by James Moore, esq., of counsel for respondents, as follows:

United States circuit court, southern district of Ohio. In equity.

285 | The Union Paper-Bag Machine Company and others vs. Murray H. Nixon and others. | 1861.

Deposition of a witness heretofore examined on behalf of respondents in the above-entitled cause, and now recalled by complainants, pursuant to notice taken before me, Wm. B. Dugnan, a special commissioner, duly appointed by said court for that purpose, at my office, No. 308 Walnut street, in the city of Philadelphia.

Saturday, June 29th, 1872—10 o'clock a. m.

Present, George Harding, esq., for complainants; James Moore, esq., for defendants.

Hiram G. Armstrong, a witness heretofore sworn on behalf of respondents in said suit, is recalled by complainants' counsel, and the respondents' counsel is hereby notified that at the time of taking the said deposition of Hiram G. Armstrong, at Trenton, on the 30th of December, 1871, no notice was given in the answer in this suit of the
285 prior use attempted to be proved by said Armstrong, and that the complainants will object to all testimony contained in said deposition at the hearing.

1. Q. Were you examined at Trenton on the 30th of December, 1871, in this case?

A. About the time, I believe.

2. Q. Was any one present on behalf of complainants at that examination?

(Objected to for the reason that the record shows, and that is the only evidence of the fact.)

A. I believe there was not.

3. Q. Can you fix the dates at which you made paper bags in the manner in which you testified to in that deposition at Trenton, and as shown in the copies of exhibits now presented to you and marked "Copy of Respondents' Exhibit C," and "Copy of Respondents' Exhibit D," by reference to any events?

A. It must be positively later than August, 1853, and between that time and 1855, from data that I am certain of on reflection.

287 4. Q. When did you give up or make any change in your bag business or move from the city?

A. I made no change in the bag business, but I moved from the city in November, 1856, took my processes with me, and returned with them in 1858; just two years gone.

5. Q. Who were the three boys you have stated in your deposition that you employed?

A. Thomas, Edwin, and John Armstrong, my three sons.

6. Q. Where did you make those bags like the ones you have testified in your deposition; was it in your own dwelling, and, if so, in what part thereof?

A. In the basement of my own dwelling, in Callowhill street, one door below Sixth, in Philadelphia.

A. He purchased what patents I had granted; I think it was two I had. The patents will speak for themselves.

WILLIAM GOODALE.

Subscribed in my presence and sworn to before me this 3rd day of May, 1872.

RANKIN D. JONES,
Special Examiner, &c.

Edward W. Goodale, a witness, recalled by complainants, by
282 consent of respondents, for the purpose further cross-examination, deposeth and saith as follows:

X 1. Q. Will you please give the months and year when you first put the knives on your envelope-machine and cut blanks from a continuous roll?

A. I think that it must have been the first or second winter after the interference case, for the reason that I was engaged in the winter previous to the interference case arranging that model; that is, the winter months.

X 2. Q. Did those shears work satisfactorily?

A. I cannot say that they worked as well as the ones I had in operation in 1854.

X 3. Q. From your experiment at that time with them, you did not feel justified in building a full-sized working machine for making bags, did you?

(Question objected, for assuming what has not been stated as testimony by the witness, to wit, that these are experiments.)

283 A. I don't know as that was the only reason why I did not proceed to perfect my machine at that time.

Re-examination by James Moore, of counsel for respondents:

4. Q. Did you regard your machine perfected for making both bags and envelopes before the beginning of 1855, or in the fall of 1854?

A. I did, so far as I could judge before I tried the experiment.

Recross-examination by Edwin J. Howlett, esq., for complainant:

Re-X 5. Q. Which part of the bag was carried forward first by the pincer in the envelope-machine; that part which forms the bottom lap, or the mouth of the bag?

A. The bottom lap.

Re-X 6. Q. Will you please, then, explain how the pointers marked in that patent assisted in forming the bottom lap?

A. The table and plunger, as I have described, was to be turned one-quarter round, and the pointers were to come in upon the paper after the sides were turned to break it for the bottom lap; the pointers
284 would have to be changed to the bottom corner of the table.

Re-X 7. Q. Why were they not shown in their proper location upon the model?

A. I think they were; they were intended to be, or to come as I have described after the changes were made.

Witness wishes to make an explanation, and I should like to add a little to my answer to cross-question 2d. They were not so perfectly made.

E. W. GOODALE.

Subscribed in my presence and sworn to before me this 3rd day of June, 1872.

RANKIN D. JONES,
Special Examiner, &c.

James M. Blanchard, a witness produced on behalf of respondents, being first duly sworn, deposeth and saith, in answer to interrogatories to him propounded by James Moore, esq., of counsel for respondents, as follows:

United States circuit court, southern district of Ohio. In equity.

285 THE UNION PAPER-BAG MACHINE COMPANY and others *vs.* MORRIS H. NIXON AND OTHERS. } 1841.

Deposition of a witness heretofore examined on behalf of respondents in the above-entitled cause, and now recalled by complainants, pursuant to notice taken before me, W'm B. Dayton, a special examiner, duly appointed by said court for that purpose, at my office, No. 522 Walnut street, in the city of Philadelphia.

SATURDAY, *June 29th*, 1872—10 o'clock a. m.

Present, George Harding, esq., for complainants; James Moore, esq., for defendants.

Horatio G. Armstrong, a witness heretofore sworn on behalf of respondents in said suit, is recalled by complainants' counsel, and the respondents' counsel is hereby notified that at the time of taking the said deposition of Horatio G. Armstrong, at Trenton, on the 20th of December, 1871, no notice was given in the answer in this suit of the
286 prior use attempted to be proved by said Armstrong, and that the complainants will object to all testimony contained in said deposition at the hearing.

1. Q. Were you examined at Trenton on the 20th of December, 1871, in this case?

A. About the time, I believe.

2. Q. Was any one present on behalf of complainants at that examination?

(Objected to for the reason that the record shows, and that is the only evidence of the fact.)

A. I believe there was not.

3. Q. Can you fix the dates at which you made paper bags in the manner in which you testified to in that deposition at Trenton, and as shown in the copies of exhibits now presented to you and marked "Copy of Respondents' Exhibit C," and "Copy of Respondents' Exhibit D," by reference to any events?

A. It must be positively later than August, 1853, and between that time and 1855, from data that I am certain of on reflection.

4. Q. When did you give up or make any change in your bag
287 business or move from the city?

A. I made no change in the bag business, but I moved from the city in November, 1856, took my processes with me, and returned with them in 1858; just two years gone.

5. Q. Who were the three boys you have stated in your deposition that you employed?

A. Thomas, Edwin, and John Armstrong, my three sons.

6. Q. Where did you make those bags like the ones you have testified in your deposition; was it in your own dwelling, and, if so, in what part thereof?

A. In the basement of my own dwelling, in Callowhill street, one door below Sixth, in Philadelphia.

7. Q. Give me the time of the birth of your three boys that helped you?

A. October, 1840; December, 1842; October, 1844.

8. Q. State whether or not you abandoned that mode of making bags, and if so, why?

(Objected to for the reason that the witness has already stated
288 his reasons for ceasing to manufacture those bags, because the question is leading and suggestive of what is not in the testimony.)

A. We commenced making bags by dividing the sheet directly in two, with an elbow in the knife, and kept on operating in that way, but seeking a model and more expeditious way, trying various experiments; among them was this which is a sample, (Example D.) We found by experimenting that we did not succeed so well as by the first operation, but we made a better-looking bag, but we could not make them so expeditiously.

9. Q. What was the result of your experiments?

A. We gave that and other experiments up, and fell back on the old process up to 1859.

10. Q. Could any person purchasing these bags, on examining the finished bag, determine from it how it was made by inspection merely?

(Objected to as immaterial.)

A. I don't know; I could probably myself; I don't think other
289 people could; they would be bewildered in the turning; an expert might see how they were made.

11. Q. Can you state with certainty how many bundles of paper or reams you used up in the manufacture of bags like Exhibit D?

A. I cannot positively; my impression is that I cut up a bundle for each kind, from the fact that the knife would, with one cut, cut through a bundle at a time; the larger paper was cut lengthwise as it was folded in the bundle; there were four or five sizes, and I cut one bundle for each size; I bought the paper expressly for the experiment; that would make more bags of the smaller sizes.

12. Q. Had the twos, threes, fours, and sixes any lap at the top like Exhibit D?

A. I think not. The paper was not long enough only to make one division: that is, two bags. I know there was no lap only at the top of the ones.

13. Q. What did a bundle of this paper weigh?

290 A. A ream, twenty-five to thirty pounds; a bundle, fifty to sixty pounds.

14. Q. What did you get a pound for these bags?

A. The brown stock we sold for eight cents in those days. I sold these bags, a better quality of paper, for tea bags, for a better price than that; don't recollect what. I mean that, being of a better quality of paper, I got a better price for them. Our paper-bag paper is of a very different quality to-day from what it was at that time. The coarser and more common paper of that day was not fit to be cut; people wouldn't use to-day the bags that they used then.

15. Q. Do you know to whom you sold these bags?

A. I traveled Reading, Lancaster, and adjacent towns. There were no bags sold in Philadelphia in those days. I believe I can't recollect any person to whom I sold these bags. I am pretty well satisfied that a young man at Valley Forge, Edwin Woodman, took some of them; that is all I can recollect. There is a man in Reading whose
291 name I can't think of who might have got some.

166. Q. Are the dates given by you in answer to question 33 as near as you can fix your experiment with certainty?

A. I have the two periods to govern myself by, and I cannot speak more positively or particularly.

167. Q. Have you referred to or upon the subject since you gave your testimony at Trenton and could correct to fix the dates?

A. Yes, sir; I have.

168. Q. When did you first begin the manufacture of paper bags of any kind in Callowhill street?

A. In the fall of 1853.

169. Q. How do you fix that date?

A. By my brother's moving away to a distance of one hundred and seventy miles some time in August, and I wrote him that I had made an addition to my business. Before that we both followed the same business—paper. My youngest son was born on the fourth, 7th, or 8th of August, and he went a few days before that.

Cross-examination by Mr. Moore:

X 220. Q. How long did you continue to make paper bags by hand from August, 1853?

A. From 1853 to 1859.

X 222. Q. When did you move away from the corner of Sixth and Callowhill streets?

A. In November, 1859.

X 222. Q. How many different kinds of bags—that is, different in shape of lap and bottom—did you make during the time you were at Sixth and Callowhill streets?

A. We made only those two kinds which we put in the market. This (marked by examiner "Complainants' Exhibit, Armstrong Bag") was the principal kind up to 1859.

X 223. Q. By principal kind you mean the kind that you sold the most of, do you not?

A. Yes, sir.

X 224. Q. Which kind did you make first—those represented by Exhibits C and D or those represented by "Exhibit, Armstrong Bag?"

A. That marked "Armstrong Bag" was the first kind.

223 X 225. Which kind were you making immediately before you removed from Callowhill and Sixth streets?

A. Such as "Complainants' Exhibit, Armstrong Bag."

X 226. Q. What was the objection to bags such as Armstrong bag, that induced you to make bags such as Exhibits C & D?

A. Their commonness was one thing, and we thought we could accelerate the motion by adopting the other way of making them, and also the neatness of C and D.

X 227. Q. Well, did you succeed in making a neater bag, in your opinion, and in accelerating the motion?

A. We made a much neater bag, but we lost in motion; we couldn't make so many of them.

X 228. Q. Then, I understand that bags such as C and D were perfectly satisfactory in every particular when made, but that you ceased making them solely because you lost in motion, that is, could not make them so rapidly?

A. Yes, sir; I believe that is the fact.

224 X 229. Q. About how long do you now think you were engaged in manufacturing bags like the "Exhibit, Armstrong Bag" before you made the change represented by Exhibits C and D? And, in this

connection, you will please examine your answer to question 3 of your deposition, taken in Trenton, December 20th, 1871, which is now shown you for that purpose.

A. The fact of my brother's moving and being familiar with my business, that is, my brother's moving and the birth of my boy—two incidents together—were very near August, 1853, or in the latter part of July. I see nothing in that answer I object to, except the date of 1852. It should have been 1853, and earlier than November, or later, I can't tell which.

X 30. Q. (X 29 repeated.)

There are three years there for you to operate upon. I am inclined to think it was in the earlier part of that time, but I wouldn't swear to it.

31. Q. Have you any books of account that will probably show when you commenced to make bags like C & D?

295 A. No, sir.

X 32. Q. It is your present recollection, is it not, that you commenced to make bags like C and D almost immediately; that is, within a few weeks, or a month or two at farthest, from the time you commenced to make bags like "Armstrong Bag"?

A. It isn't my recollection, but it is my impression; it is my impression that I experimented early from the fact that I was pretty well established in the "Armstrong Bag" when I moved to the country in the latter part of 1856—November.

X 33. Q. You have this impression, then, because at the time Exhibit C and D were made by you, you were not well established in your market for any kind of bag; is not that correct?

(Objected to.)

A. That is correct. I wanted to introduce something that was neat; that wouldn't stick together in a mass.

X 34. Q. Could you now state about the extent of your busi-

296 ness; that is, of your sales or market that you had for bags, from the time you commenced in 1853 until the first of January, 1854; then about the increase between the first of January, 1854, and the first of January, 1855, and, in the same way, the similar increase during the years 1855 and 1856 respectively?

A. I could in a measure. We sold all that we made; sometimes the bags got up to four thousand a day; we got up from twenty thousand to fifty thousand a week, until I hired help; we made twenty thousand a week during 1853 to 1854; about a thousand a day until they got their hands in, and then they went up to five or six thousand apiece a day. From 1854 to 1855 we made fifty thousand a week, and in 1856 probably upt to seventy-five thousand.

X 35. Q. Then, in the early part of 1854, if I understand you correctly, you were making and selling about fifty thousand bags per week, and you considered your business pretty well established?

(Objected to.)

207 A. Yes, sir; in a small way. I believe I sold them all in Phœnixville and Pottstown; I traveled up there.

X 36. Q. Was not the place at Callowhill and Sixth streets, where bags like Exhibit C and D were made, your place of business and workshop as well as your dwelling?

A. Yes, sir; I worked in the basement; the basement was under ground there, and the cellar under that.

X 37. Q. How old must a boy be before he is able to make paper bags, with proper instruction?

A. Mine were 12 or 13, 10, and 8.

X 38. Q. In answer to question 8 you have described a mode of making bags by severing the paper with an elbow in the knife; will you please explain what sort of bag was made and severed with said knife with reference to the several exhibits, C, D, and Armstrong bag?

A. This "Armstrong Bag, No. 2," is a sample of bag which we sometimes, not often, made in that way from necessity; we objected to the projecting point in those days.

298 X 39. Q. Were bags made in the manner described in your last answer publicly sold; that is, put upon the market?

A. Yes, sir.; we sold all we made.

X 40. Q. About how many such were made and sold, and give the time, as nearly as you can, when they were first sold.

(Objected to.)

A. At intervals between 1856 and 1859; I can't tell how many it was; then we ran out of the small paper.

X 41. Q. Then these were not made until some years after Exhibit C and D?

A. I can't tell; these were made after 1856, and the others before; before 1856 I was buying up lots of paper wherever I could get it, but after that I got one kind constantly.

X 42. Q. Could not any person who was a manufacturer of paper bags, upon examining a bag like Exhibit D, when finished, be able to tell how it was made?

A. I don't know whether they could or not; some might and

299 some might not; we always had a creased mark down the centre of the bag, resulting from the first fold; the great trouble was in opening each section of the tube, and that was where we lost so much time.

Counsel for respondent here objects to M'r Harding, counsel for complainants, standing beside the examiner and filtering the language of the w..ness before it can be written by the examiner, and suggesting to the examiner that language of the witness shall go down, and in what order.

M'r Harding calls upon the examiner to state on the record if he has improperly interfered with him in any way in taking down this deposition, and calls upon the witness to state whether the last answer is according to what he said.

Counsel for respondents desires that the examiner, in making the statement called for by complainants' counsel, shall state the facts in relation to the matter in question, and permit the court to judge of their propriety or impropriety.

300 The examiner would state that interruptions have been made by counsel, but to a nearly equal extent by both parties during the examination.

Counsel for respondents desires here to state that immediately before the last note was written, M'r Harding said aloud that it was the business of the examiner to keep order; that if he had not done it "we" would go before an examiner that could.

The examiner here reads to the witness the last question and his answer to the same, and then makes the enquiry addressed by M'r Harding, as to whether the answer is in accordance to what he said.

Witness replies, "Yes; that is correct."

Re-examined by M'r Harding:

43. Q. Do you refer to the form of bag like "Exhibit, Armstrong Bag" in your answer to question 34th, when speaking of the quality made by you and your boys?

A. Yes, sir.

44. Q. Please state whether each answer given by you has been read to you by the examiner after he took it down, and whether you
301 assented to its correctness at the time.

A. I believe each has been read to me, and that I have assented to it after correcting some little blunder that I have made.

45. Q. Have you been conscious of any interference on my part which has prevented the answers from being correctly taken down?

A. I have had no influence in any of the answers which I have made to the commissioner by any interruption on either side.

M'r Harding requests the examiner to read the deposition carefully to the witness before signing, which was then done by the examiner.

HORATIO G. ARMSTRONG.

Sworn and subscribed before me this 29th day of June, A. D. 1872.

W'M B. DAYTON,
Examiner.

M'r Harding enquires of the respondents' counsel whether he is satisfied that M'r Dayton shall continue to take these depositions, or would prefer another examiner.

302 Counsel for respondents, in reply, would say what he has just now said orally to M'r Harding, and would now say of record, that he has not intended to find any fault whatever with the examiner, and does not believe that the remarks of counsel are capable of any such interpretation, but that counsel for respondents did then intend, and still means it, to object to the conduct of complainants' counsel in the particulars referred to.

M'r Harding requests counsel for respondents to call the attention of the last witness, who is now present, to any answer which he thinks has not been taken down by the commissioner properly, in order that the witness may correct it if he desires.

Counsel for respondents, in reply, would state that he does not feel sufficient interest in the matter or regret at what he has done to waste further time in this connection.

EASTERN DISTRICT OF PENNSYLVANIA,
City and County of Philadelphia:

303 Be it remembered that before me, W'm B. Dayton, an examiner duly appointed by said court in the above-entitled cause, on the 29th day of June, 1872, pursuant to notice, appeared the said parties, by their respective counsel, when and where were offered and put in evidence the several exhibits hereinbefore referred to, and which have been by me duly marked in said cause, and complainants recalled for examination on their behalf the above-named Horatio G. Armstrong, heretofore sworn in said cause, whose deposition was by me taken and reduced to writing, in the presence of the said witness, and was by him subscribed in my presence.

And I hereby certify that the foregoing testimony, so taken by me and returned to said court, is a true and correct report of the questions and answers as propounded by counsel and replied to by the said witness.

And I further certify that I am not of counsel or attorney in said cause, nor am I related to or in anywise connected with said
304 parties, or either of them, nor directly or indirectly interested in the results hereof.

Witness my hand and official seal as notary public, at said city of Philadelphia, this third day of July, A. D. 1872.

WM B. DAYTON,
Examiner and Notary Public.

305 Testimony taken on the part of the defendants, under the 67th rule in equity as amended, by Daniel T. Potter, special examiner, duly appointed by the said court, to take the deposition of Charles D. Moody in said cause.

Defendants offer in evidence a certified copy of letters-patent granted Merrick Murphy, January 27th, 1874, No. 146774, for improvement in paper-bag machines, and marked "Defendants' Exhibit C."

Defendants also offer in evidence a certified copy of letters-patent granted to R. W. Murphy, January 27th, 1874, No. 146773, for improvements in paper bags and machines for cutting the same, and marked "Defendants' Exhibit D."

Defendants also offered in evidence a certified copy of letters-patent granted to Francis Wolle, October 26th, 1862, No. 9355, for improvement in machine for making bags of paper, marked "Defendants' Exhibit E."

Defendants also offered in evidence a certified copy of letters-patent granted to James Cox, February 13th, 1854, No. 347, for improvement in knives for cutting paper, and marked "Defendants' Exhibit F."

306 Defendants also offer in evidence a certified copy of letters-patent granted to John A. Smith and S. E. Potter, May 1st, 1855, No. 12786, for machines for making paper bags and envelopes, marked "Defendants' Exhibit G."

Defendants also offer in evidence a certified copy of letters-patent granted to Francis Wolle, May 29th, 1855, number 12982, for machine for making paper bags, marked "Defendants' Exhibit H."

Defendant' also offer in evidence a certified copy of letters-patent granted E. W. Goodale, May 29th, 1855, number 12945, for improved machine for making paper bags, marked "Defendants' Exhibit J."

Defendants also offer in evidence a certified copy of letters-patent granted to William Brown, August 25th, 1855, No. 1926, for improvement in the manufacture of paper bags, marked "Defendants' Exhibit K."

Defendants also offer in evidence a certified copy of letters-patent granted to E. W. Goodale, October 9th, 1855, No. 13647, for machine for making envelopes, &c., marked "Defendants' Exhibit L."

307 Defendants also offer in evidence a certified copy of caveat filed by Benjamin F. Rice, June 13, 1856, for machines for making paper bags, marked "Defendants' Exhibit M."

Defendants also offer in evidence a certified copy of letters-patent granted to Benjamin R. Rice and Charles H. Morgan, assignees of Benjamin F. Rice, April 28th, 1857, No. 17184, for improvement in machines in making paper bags, marked "Defendants' Exhibit N."

Defendants also offer in evidence a certified copy of letters-patent granted to Henry R. David, October 3d, 1858, for improvement in knives to cut paper bags, &c., and numbered 21657, marked "Defendants' Exhibit O."

Charles D. Moody, deposition of.

I reside in the city of St Louis, Missouri; my age is thirty-seven years, and my occupation is solicitor of patents. I have been engaged in the business of soliciting patents for six or seven years past. I have

been engaged during that time as solicitor of patents. Prior to that time I was engaged in manufacturing and mechanical pursuits, and originally was a civil engineer.

Ques. Please state what acquaintance you have had, if any,
308 with paper-bag machines, and what knowledge, if any, you have of the letters-patents that have been granted for such machines.

Ans. I have examined paper-bag machines. I have also examined various letters-patents relating to paper-bag machines. I am also called upon, and have been, to prepare applications for patents relating to paper-bag machinery, and also to investigate the principles and examine the devices involved and employed in paper-bag machines.

3. Ques. Please state whether you have at any time examined, and, if so, when, the paper-bag machines operated by the defendants and either of them; and if you have examined such, state how the same corresponds with the model now shown you, marked "Defendants' Exhibit, M. Murphy Machine."

Ans. I have examined such machines several times during the fall of 1873, during the spring of 1874, and recently, within a week. At the time of the first examination referred to, said machines and the model now shown corresponded; at the time of the second examination referred to, they corresponded with the exception of the fixed blade employed in the cutting-device; at the time of the last examination referred to, they corresponded with the exception of such fixed blade and a slight change in connection with the pasting apparatus at the front end
309 of the *front end of the* machine, the paste being applied to the paper by means of a disk instead of the paste-belt shown in the model. By the front end of the machine, I mean that end to which the paper is originally delivered.

3. Quest. Please state if you have examined and understand the construction shown and described in letters-patent "Defendants' Exhibit B."

Ans. I have examined such construction, and believe that I understand it.

4. Q. Please state how the machines operated by the defendants, examined by you as above stated, correspond with or differ from the construction shown and described in said Exhibit B.

Ans. Said machines correspond with the construction shown in Exhibit B, excepting that the cutting-devices differ. The carrying-belt employed by defendants is divided into two parts instead of being in one, as shown in Exhibit B, and the change referred to in connection with the pasting-disk.

5. Ques. Please state if you have examined and understand the construction shown and described in letters-patent "Defendants' Exhibit C."

Ans. I have examined such construction, and understand it.

310 6. Ques. Please state how such construction corresponds with or differs from that of the machines operated by defendants.

Ans. At the time of the first visit referred to, they corresponded. At the time of the last two visits referred to, they corresponded, saving that the fixed knife employed in the cutting-device was changed.

7. Ques. Please state if you have examined the letters-patent "Defendants' Exhibit D," and whether you understand the construction therein shown and described.

Ans. I have examined said exhibit, and understand the construction shown therein.

8. Ques. Please state how such construction corresponds with or differs from that used by the defendants in their said machines?

Ans. It corresponds exactly.

9. Q. Please look at the exhibit now shown you, mark' "M. Murphy, Knife," and state how the same corresponds with the fixed blade used in the machines of the defendants.

Ans. It corresponds with that seen at the time of the first visit referred to, but not with that seen subsequently.

10. Ques. Please look at exhibit now handed to you, marked
311 "Defendants' Exhibit, R. W. Murphy, Knife," and state how the same corresponds with or differs from the construction shown and described in letters-patent Exhibit D, and with the construction now used in the defendants' machines.

Ans. It corresponds with the construction described in Exhibit D, and with the construction employed by defendants after my first visit.

11. Ques. Please state if you have examined and understand the construction shown and described in re-issue letters-patent No. 920, granted the assignees of Benjamin F. Rice.

Ans. I have examined such construction, and believe that I understand it.

12. Ques. Please look at the first claim of said patent, and state in your opinion whether or no the devices or machines used by the defendants at the time of either of your said examinations corresponded with or differed from the machine described in said claim.

Ans. At no time did the construction of defendants correspond with that referred to said claim.

13. Ques. Please look at the second claim of said re-issued patent, and state your opinion as to said machines of defendants corresponding with or differing from the devices set forth in said claim.
312

Ans. Said construction of defendants, in my opinion, does not correspond with the device or devices referred to in said claim number two.

14. Ques. Please state whether, in said machines of defendants, the paper had a motion such as is described in the third claim of said re-issued patent.

Ans. It did not.

15. Ques. Please state how the mode of cutting the paper in the defendants' machines corresponded with or differed from the mode described in the fourth claim of said re-issued patent.

Ans. As described in said re-issued letters-patent, a continuous sheet of paper is drawn around a supporting-bar and into a tubular form by means of suitable rolls and guides; while on this bar the paper is pasted longitudinally, forming a tube. This tube is drawn further on beyond the end of the supporting-bar far enough to enable a bag-length of paper to be cut off. The supporting-bar referred to is a rigid bar, extending from and supported by the standards at the forward end of the machine. It is in cross-section of shape shown in Figures 6 and 7 in said re-issued letters-patent, and at its farther end it is beveled, as shown in
313 Figures 1 and 2, the under edge of the bar being shorter than its upper. Immediately under its lower edge, and distant from it only so that one side of the tube of paper can pass between, is a stationary blade, K^2. There is a severing-blade supported by radial arms, which operates in connection with the paper tube and supporting-bar and stationary blade. This severing blade has a reciprocating motion in the arc of a circle, passing down by the beveled end of the supporting-bar, severing the tube referred to obliquely, the upper edge of the

supporting-bar furnishing a supporting-surface to one side of the tube, and the stationary blade referred to furnishing a supporting surface to the other side of the tube.

In Murphy's machine the paper is drawn from the roll over a flat supporting-surface, and over a fixed serrated blade, and, while in a flat shape, is cut by the action of the striker from above upon it, thus forming a blank from which the tube is made. This blank is afterwards carried into a former. The action of the striker in defendants' machine is unlike the action of the severing-blade of Rice. The paper is in a different form while being cut. The supporting-surfaces, respectively, of the two constructions differ substantially, and the cutting-devices
314 as a whole do not substantially correspond. I may add that the depth of the supporting-bar of Rice at the point of the severance of the tube is an essential feature. It must have depth sufficient to enable the projection required by Rice to be formed. There is nothing corresponding to this in Murphy's construction.

16. Ques. Please state what is the character of the edge of the bag cut upon the Rice machine, whether serrated or smooth.

Ans. Smooth.

17. Ques. Please state if you have examined and understand the construction shown and described in letters-patent No. 24734, granted William Goodale, for improvement in machinery for making paper bags.

Ans. I have examined said construction, and think that I understand it.

18. Q. Please look at the exhibit now shown you, marked "Defendants' Exhibit, W'm Goodale, Knife," and state how the same corresponds with or differs from the knife described and shown in said William Goodale patent.

Ans. It corresponds exactly.

19. Ques. Describe the shape of the bag and the manner of folding the same described and shown in said William Goodale's patent, and, if you have any pat'ern of such bag, please produce it.

315 Ans. The blank is of shape shown in Figure 4, provided with a projection at one end at its center, and a corresponding depression at the other end. It is folded longitudinally in the lines marked "12 12" in the drawing, which folds when pasted from the blank into the tube. The laps designated 10 10 in the drawing are then folded over and upon the central portion, forming the bottom of the bag. The projection 11, at the opposite end of the bag, can be used to close its mouth if desired. The models here shown and marked "Defendants' Exhibit, W'm Goodale, Bag," is a correct representation of the blank shown in the William Goodale patent, the dotted lines thereon indicating the lines of the folds of the blank, and the numbers marked thereon correspond with the numbers shown in the drawing.

20. Ques. What is the character of the edge of the blank cut by the William Goodale knife?

Ans. Smooth.

21. Ques. Please state how, in your opinion, the cutting-device used by the defendants, when they employed the M. Murphy knife, corresponded with or differed from the cutting-device shown and described in said William Goodale's patent.

Ans. the cutting-device shown in the William Goodale patent consists substantially of a knife of the form shown in said "Defendants' Exhibit William Goodale, Knife," having a reciprocating move-
316 ment vertically, and a supporting-surface consisting substantially of a flat table provided with a slot, of shape conforming to that of

the knife, and in width sufficient only to enable the knife to pass into it. The paper is drawn over this supporting-surface, and is held until the knife has descended through the paper into the slot and has been withdrawn. The knife used by defendants is arranged horizontally, forming the supporting-surface. This knife is flat. The knife of defendants and the cutting-device in the William Goodale patent do not substantially correspond, in my opinion.

22. Ques. Please state what is the character or nature of the motion of the paper when cut in the William Goodale machine.

Ans. Intermittent.

23. Ques. Please state whether or no it would be possible to cut paper in the William Goodale machine if the motion of such paper were continuous.

A. No.

24. Ques. Please state what is the nature of the motion of the paper while being cut in the defendants' machine.

Ans. Continuous.

25. Ques. Please state of what importance, if any, are the serrations in the R. W. Murphy knife, so far as relates to the practicability
317 of pasting and folding by machinery the lap to form the bottom of the bag.

Ans. They are very important, owing to their peculiar character; namely, those at either side of the blank being coarser than those at the center of the blank, provision is made for the paste to come upon the under fold of the bag and enable it to be pasted to the body of the bag when the fold is turned upon it.

26. Quest. Please state whether in the blank cut by the R. W. Murphy knife you do or do not find any projection such as is described and shown in the Rice and William Goodale patents, above referred to.

Ans. I do not.

27. Ques. Please state whether, in your opinion, it would be possible for the Rice or William Goodale cutting-devices to produce a blank like that cut by the R. W. Murphy knife, supposing the R. W. Murphy knife were substituted in said machines respectively for the vibrating knives in said machines.

Ans. In my opinion, it would not.

28. Ques. Please look at Defendants' Exhibit E, now handed you, being letters-patent granted to Francis Wolle, October 26, 1852, and state if you understand the mode of cutting the blank and folding the same into a bag.

Ans. I do.

318 29. Ques. Please describe how the same is cut, and annex to your answer a sample of such blank, marking upon the same the lines upon which the same is folded in order to form it into a bag.

Ans. The paper is cut from a continuous roll into the form of the blank now shown, and marked "Defendants' Exhibit Wolle, Bag." Part of the blank is then folded over upon the other portion thereof, as indicated by the dotted lines marked thereon. The laps at the end and side are then folded over upon the central portion, completing the bag.

30. Ques. Please look at Defendants' Exhibit F, being patent granted James Cox, February 13th, 1854, and state if you understand the construction and operation of the devices therein described and shown.

Ans. I do.

31. Ques. Please describe, or show by a model, if you have such, the shape of the blank cut by the knife described in said patent.

Ans. The blank which I hold in my hand, marked "Defendants' Ex-

hibit Cox, Bag," is the form of blank cut by the knife described in said letters-patent; that is, supposing the blank to be cut from a con-
319 tinuous roll of paper, which operation is within the purview of the patent. If the blank were cut from a single sheet only, the side which now has a depression would appear straight.

32. Ques. Comparing now the knife described in the Cox patent, as explained by you, with the fourth claim of the Rice re-issued patent, state how, in your opinion, it corresponds with or differs from the device therein described as "cutting the paper, without waste of material, into such a form as shall have suitable projections for the formation of the bottom lap, or seam of the bag, and for the convenient opening of the bag."

Ans. As far as the result is concerned, it corresponds exactly; so far as the means are concerned, it has no resemblance whatever.

33. Ques. Please state whether or not the Cox knife cuts the paper "to the required form to fold into a bag without further cutting out."

Ans. It does.

34. Ques. Please look at Defendants Exhibit G, being the patent granted to Smith and Peltee, and state if you understand the mode of forming bags upon the same.

Ans. I do.

35. Ques. Please describe, and show by a model, if you have
320 such, the shape of and the mode of folding the bag therein described.

Ans. The model which I held in my hand, marked "Defendants' Exhibit Smith and Pettee, Bag," represents the form of blank cut by the cutting-device shown in said letters-patent. The dotted lines marked thereon indicate the lines of the fold. The paper is previously cut to the desired shape, then passes under a former, marked "A," whose pat'ern corresponds to the width of the desired bag. The side folders D, D fold and press the sides of the paper over and upon the bottom lap, which has been previously turned down.

36. Ques. Please look at Defendants' Exhibit J, being patent granted E. W. Goodale, May 29, 1855, and state if you understand the manner of cutting and folding the bag therein described.

Ans. I do.

37. Ques. Please describe it, and also annex to your answer a model of the blanks.

Ans. The paper is cut from a continuous roll into the form of blank now shown, and marked "Defendants' Exhibit, E. W. Goodale, Bag." The dotted lines thereon indicate the lines of folding. The figures marked thereon correspond with those in the drawing marked "Figure 4." The piece is folded in the line 1 1, bringing the part 3 on the part
4, the side laps 2 2 of the part 4 are then folded over on part 3,
321 completing the bag.

38. Ques. Please look at Defendants' Exhibit O, being letters-patent granted to Henry R. David, October 5, 1858, and state if you understand the construction and operation of the knife therein described.

Ans. I do understand such construction and operation.

39. Ques. Please state how the construction and operation of said knife corresponds or differs from that of the cutting-device shown in William Goodale's patent.

Ans. It corresponds with the William Goodale knife in part. Both knives are serrated and are arranged to operate vertically, cutting paper, supported by a level supporting-surface, in which supporting-surface a

slot is arranged, of form corresponding to the form of the knife, into which slot the knife descends in cutting the paper. The form of the knife in David, however, can be described as being in three vertical planes, while that shown in the William Goodale patent can be described as being in five vertical planes. Both cut the paper so as to leave a projection from which the bottom of the bag is formed. Both knives make a smooth cut. The particular form of the David blade is
322 indicated by a portion of Figure 5 in the drawing annexed to said letters-patent, and also in Figures 1, 2, and 3.

40. Ques. Please annex to your deposition a blank of the form shown and described in said Figure 5, indicating upon it the lines in which said blank is folded in order to complete the bag.

Ans. The blank now shown, and marked "Defendants' Exhibit David, Bag," corresponds to the one shown in said letters-patent. The dotted lines thereon indicate the lines of folding.

41. Ques. Please look at Defendants' Exhibit K, being a copy of William Brown's patent, and state if you understand the construction and operation of the tube forming the devices therein shown and described.

Ans. I do.

42. Ques. Please state the manner of forming the tube shown therein, as compared with that shown in the Rice re-issued patent.

Ans. In the Rice patent the paper is drawn along a continuous former into a tubular shape, and the end of said former pasted, forming a tube. In the William Brown patent, now shown, the paper is drawn from a continuous roll progressively through a series of guides, such series of guides (shown more particularly in Figure 3 of said letters-patent)
323 having such peculiar shape and such relation to each other as to gradually draw the paper into a tubular form, when it is pasted. So far as forming the paper into a tubular form, the series of guides referred to appears to be the substantial equivalent of the supporting-bar and surrounding guides shown in the Rice patent.

43. Ques. Please look at Defendant's Exhibit L, being E. W. Goodale's patent of October 9th, 1855, and state whether you understand the mode therein described of folding and forming the envelopes.

Ans. I believe I understand the operation referred to, which substantially is as follows: The blanks having been cut to the desired form, and having been suitably pasted and gummed, are brought under the action of a plunger whose shape conforms to that of the finished envelope or bag. The plunger is caused to descend, forcing the blank downward into a folding-stand, whose shape conforms to that of the plunger. As the blank is depressed, the folding-stand, having hinged folders of shape conforming to the flaps of the envelope, presses against the plunger by virtue of spring shown in Figure 7, and when the plunger is withdrawn from the blank the folds of the stand complete the folding over
324 of the laps to form the central portion of the envelope, such laps being folded in the order enumerated in Figure 6.

44. Ques. Please state whether you find in such description any explanation sufficient to enable a bag to be formed and pasted by that machine.

Ans. I do.

45. Ques. Please look at "Defendants' Exhibit, E. W. Goodale, Envelope," and state whether, in your opin'on, an envelope or bag of that form could be folded and pasted upon said machine, following the description contained in the specification of the patent you now hold, and shown in the drawing.

Ans. I think it could.

Cross-examination:

X 46. Ques. What mechanical pursuits had you followed previous to engaging in your present business?

Ans. Principally the manufacture of staves.

X 47. Ques. When did you become solicitor for the defendants?

Ans. I procured two letters-patent, one for each of the defendants, the latter part of the year 1873, I think. I became their solicitor for such patents a short time previously to the date referred to.

325 X 48. Ques. State how long previous to the filing of the applications of the patents referred to had you been consulted by the defendants, or either of them.

Ans. I don't remember precisely, but it was a very short time before.

X 49. Ques. At the time when you were first consulted by the defendants, you knew, did you not, that this suit was then pending against them?

Ans. Yes.

X 50. Ques. Were the defendants at that time, or either of them, engaged in making paper bags in this city; and, if so, at what place?

Ans. They were, on Second street, near Cherry, I think, in S't Louis.

X 51. Ques. The patents that you referred to as having been solicitor for are the same, are they not, that are marked Defendants' Exhibits C and D?

Ans. Yes.

X 52. Ques. Did you not draw the specifications attached to the patents, respectively, that are made Defendants' Exhibit C & D?

Ans. Yes.

X 53. Ques. At the time of drawing the specifications attached to patent No. 146773, had you ever seen a paper-bag machine that was operated with the knife and machine known as the Rice patent?

Ans. No.

326 X 54. Ques. At the time of drawing the specifications attached to patent No. 146773, had you ever seen a paper-bag machine that was operated with the knife and machine known as the William Goodale patent?

Ans. No.

X 56. Ques. At the time of drawing the specifications to the patent No. 146774, had you ever seen the knife or cutting apparatus that was used in either the Rice or William Goodale patented machines?

Ans. No.

X 56. Ques. What paper-bag machine, if any, had you ever seen in operation before you drew the specifications attached, respectively, to patents No. 146773 and No. 146774?

Ans. I had seen the machines of defendants, and I had seen a machine operated, I think, on Seventh street, below Walnut, in S't Louis.

X 57. Ques. How long before you drew the said specifications had you seen the machines operated on Seventh street?

Ans. I cannot state accurately, but it was three or four years before.

X 58. Ques. Had you ever seen a model of the patented knife or cutting apparatus that is use in what is called the William Goodale paper-bag machine?

Ans. I think I had seen a drawing.

X 59. Ques. When and where was it that you first saw a drawing of the cutting apparatus used in the last-mentioned machine?

327 Ans. I cannot state the time exactly. I think the place was in my office. I think it was within a year of the present time.

X 60. Ques. You were asked by defendants' counsel, in interrogatory

No. 27, whether it would be possible for the Rice or William Goodale cutting-devices to produce a blank like that cut by the R. W. Murphy knife. You answered, "In my opinion, it would not." Now, explain why not, and what the substantial difference would be, if any.

Ans. The blank cut by the R. W. Murphy knife at its ends is provided with peculiar serrations, such serrations being absolutely essential in the formation of the bag. The blanks formed by the cutting-devices employed in the Rice and William Goodale patents have smooth edges. The aim in the William Goodale and the Rice patents evidently is to secure a projection, out of which projection the bottom of the bag is to be formed. In the blank cut by the R. W. Murphy knife there is no such projection from which to form the bottom of the bag. These differences indicate, in my opinion, a substantial difference between the R. W. Murphy construction and those of Rice and William Goodale.

X 61. Ques. Is not the object of the R. W. Murphy knife, by the serrations in cutting the paper, to provide for a lap at the bottom of the bag, and do not the serrations simply provide a method or means
328 of passing the lap?

Ans. The serrations provide means by which the paste can come upon the under fold of the bag, so that when a portion of the end of the bag, including not merely the serrations but extending in beyond them, is turned up upon the central portion of the bag, such folded portion will adhere closely and form a practical bottom to the bag. It is not the object of the R. W. Murphy knife to provide a lap which projects beyond the rest of the bag, out of which to form the bottom of the bag.

X 62. Ques. Does the R. W. Murphy cutting apparatus cut a bag without any provision for or regard to a lap at the bottom of the bag?

Ans. If by the term "lap" is meant a projection beyond the rest of the bag, it does.

X 63. Ques. What do you mean when you use the term "lap" in regard to the formation of paper bags?

Ans. I should term it a projecting portion which can be turned over upon some other part if desired.

X 64. Ques. In framing the specifications annexed to patents 146773 and No. 146774 did you use the term "lap" in the sense or signification in which you now use it?

Ans. I do not remember.

X 65. Ques. I will read to you from specification in patent No. 146-773: "Sufficient paste will pass through to the under side of the bag to insure a perfect adhesion of the lap when folded up, as
329 shown in Figure 4." Now, will you explain in what sense or signification you use the term "lap" in this specification, as I have read it to you?

Ans. As I remember, I referred to the whole portion of the end of the bag which is turned up in forming the bottom of the bag.

X 66. Ques. Did you ever observe how the paste is applied on and over the serrated bag cut by the R. W. Murphy device, at the bottom of the bag? I mean how much beyond the depth or base of the larger serrations is the paste applied.

Ans. I do not remember exactly, but I think when the bag is finished the paste will be as far upon the bag as the points of the serrations will extend; indeed, I may say I have seen it so applied.

X 67. Ques. Are you positive that the paste is applied at all beyond the bases of the larger serrations?

Ans. Yes.

X 68. Ques. Now, are you not mistaken in regard to this matter, and is it not the fact that the paste applied on the bag cut by the R. W. Murphy device does not extend more than a half inch above the base of the larger serrations?

Ans. I am not mistaken. Whether it extends "a half an inch above the base of the larger serrations" depends upon the proportion
330 of the bag that is turned over to form the bottom. The particular bags that I have seen are turned over variously; bags of larger sizes being turned over more than those of smaller size.

X 69. Ques. Is not the whole object of cutting the larger serrations to provide for the taking of the paste of the smaller projections left by the smaller serrations?

Ans. No.

X 70. Ques. How could you paste the smaller projections on the R. W. Murphy bag without having the larger serrations?

Ans. If by that is meant the central portion of the bag, it could easily be done by giving a slight taper to the bag in folding it longitudinally to afford necessary space for the *space* to adhere to.

X 71. Ques. The base of the bag, then, in such case would not be square?

Ans. Yes, it would.

X 72. Ques. When you speak of giving the bag a "slight taper," in what direction would the taper be?

Ans. Longitudinal.

X 73. Ques. Explain, if you please, what purpose, if any, the larger serrations in the bag cut by the R. W. Murphy device or machine serve.

Ans. They serve two purposes at least. One is to assist in
331 forming the bottom of the bag, and another in enabling the blank to be properly drawn through the rolls.

X 74. Ques. Can a bag be cut and completed on the R. W. Murphy machine without cutting the serrations at the bottom?

Ans. I understand, for the purposes of this answer, the term "R. W. Murphy machine" to include all the devices shown in "Defendants' Exhibit M. Murphy Machine," saving that the R. W. Murphy knife is substituted for the M. Murphy knife. With such understanding, it can be.

X 75. Ques. Do you mean, then, that the whole bottom of the bag with the R. W. Murphy device can be cut with small serrations only, and be pasted and folded to make a bag complete?

Ans. Yes.

332 And afterwards, to wit, the following stipulation was filed, on the 15th day of September, 1875:

Circuit court of the United States for eastern district of Missouri.

THE UNION PAPER-BAG MACHINE CO. & Samuel Cupples *vs.* MERRICK MURPHY & R. W. MURPHY.	No. 124.
THE UNION PAPER-BAG MACHINE COMPANY & Samuel Cupples *vs.* MERRICK MURPHY & R. W. MURPHY.	No. 149.

It is stipulated & agreed, by the undersigned solicitors of the respective parties to the above-entitled causes, that the exhibits hereto annexed

to which is attached the certificate of the clerk of the circuit court of the United States for the eastern district of Missouri, are the same exhibits that were exhibited to the said circuit court & considered in the trial of said causes.

And inasmuch as it is impossible to copy said exhibits into the record of said causes, it is hereby further stipulated & agreed by the undersigned that the said clerk shall certify and send up the said
333 exhibits with & as a part of the record of said causes to the Supreme Court of the United States, & that said exhibits may be considered in the last-mentioned court the same & with like effect as if said exhibits had been copied into the record of said causes.

KRUM & MADILL,
Solicitors for Complainants.
SAM'L S. BOYD,
Solicitor for Defendants.

UNITED STATES OF AMERICA,
Eastern District of Missouri, ss:

I, M. M. Price, clerk of the circuit court of the United States in and for said district, do hereby certify that the above and foregoing is a true and complete transcript of the record and proceedings had in the above-entitled cause, as fully as the same appears of record and on file in my office.

In witness whereof I have hereto subscribed my name and affixed the seal of said court, at office, in the city of S't Louis, this 5th day of October, A. D. 1875.

[SEAL.]

M. M. PRICE, *Clerk.*
By C. M. WARD, *Deputy.*

KRUM & MADILL,
Att'ys for Pl'ffs in Error.

(Indorsement on cover:) No. 232. The Union Paper-Bag Machine Company and Samuel Cupples, appellants, vs. Merrick Murphy & R. W. Murphy. E. Missouri C. C. U. S. Filed 16th October, 1875.